

JULY, 1961



AMATEUR RADIO

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Full story to appear in a later issue.

2-

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All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK3WI: Sundays, 1100 hours EST, simultaneously on 3573 Mc., 7145 Mc., and 148.6 Mc. Intrastate book-ups taken on 7086 Mc.

VK3RWI: Sundays, 1820 hours EST, simultaneously on 3573 and 7145 Mc., 31015 and 148.6 Mc. Intrastate book-ups taken on 7135 Mc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

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AMATEUR RADIO

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EDITORIAL

*

AMATEUR RADIO IS A WAY OF LIFE

Amateur Radio to many of us has become a way of life. Unlike other hobbies, Amateur Radio provides a vital contact with the other man—whether he be your countryman or from some remote part of the world—a contact which opens the gate for an international understanding of the other man's problem in a way which all the newspaper, broadcast programmes, television programmes and other mediums cannot surpass.

As a hobby which can be conducted from your own home it provides in an instant that contact with the outside world which would take hours, days, weeks, months and perhaps years to make by other means. This contact opens the gate to free thinking about "the way the other man lives"; it takes you to his "garden" and he to yours; it gives you an insight into his way of living as compared to yours; and above all, it gives you an oral international communication unique to your hobby.

This way of life must never be left to "drown"; it is a way of life which we, as Amateurs, have as a legacy from those early pioneers who paved the way to make such unique communication possible at the press of a switch. To this end we should be vigilant in every phase of our art in order that our requirements are always available to us and that we give to our hobby what we expect to gain from it.

The Wireless Institute of Australia is proud to represent the Australian Amateur Service in all its problems. What concerns you will

be its concern. What it can achieve for you will be yours. But it must have your moral and financial support, and you can encompass these requirements by remaining a member and encouraging others to join.

RECONNAISSANCE

In the summer and spring Amateurs turn the world over to the outdoors for recreation and the healthy pursuits of outdoor activity, some of which is given to maintenance on the station aerial systems which are a hardy task in the autumn and winter seasons.

July is getting well into winter with dark, wet mornings when the rain and dew doesn't dry out until midday and the cold evenings start with the sinking of the sun around 18:00. July is the commencement of that three-month winter period when time can be devoted to the shack and all those things which the warmer months could not drive you inside to do.

There would be few Amateurs who could honestly say that he had nothing to do with his hobby other than to walk in, sit down, switch on his rig and have a number of QSOs throughout the year without some thought to "other things he wanted to do in connection with his hobby."

The winter months is the time to do these things so that more time in the open is available when the warm months return. So take stock of that list of "things to do" and get them done during July, August and September. By September spring is here again and the outdoor life calls.

FEDERAL EXECUTIVE

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TEST EQUIPMENT

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C3-U



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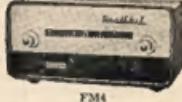
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KNOW YOUR CAPACITY

E. J. CAWTHON,* VK5JE

In a recent issue of a popular radio publication the author of a certain article described how he had experienced considerable trouble with his c.r.o. and had eventually found "leaky" capacitors to be culprits. His comments suggest that there are probably many more obscure faults being experienced by constructors who are blissfully pinning their faith in the capacitors manufactured many years ago.

I have a vivid memory of having received a packet of unused capacitors from a W2 friend just after the war and being curious about their breakdown voltage decided to "megger" them. To say that I was amazed to find the majority of them showing a leakage around the one megohm mark is putting it mildly—I hope the dustman has never tried to use them!

The article on the c.r.o. started my train of thought working again, so recently I decided to go through my junk box and do some more testing. I am certainly glad I did, because over 60% of them have now been discarded. Readings of 0.5 to 5 megohms were quite common and I can only assume that this state of affairs must exist in hundreds of other junk boxes.

For the experienced constructor it is a matter of where the capacitor is placed in the circuit as to what degree of leakage can be tolerated and one which is unsuitable for anode coupling may be quite satisfactory in a low voltage circuit.

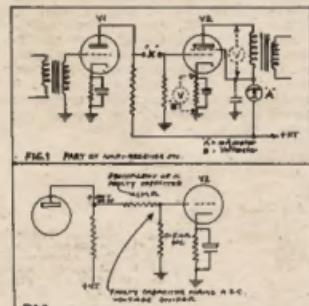
LEAKAGE VARIETY

Recently a class of new recruits to our art were required to construct an experimental two-stage amplifier and an opportunity was taken to demonstrate the wisdom of pre-testing all capacitors prior to installation. The circuit was somewhat similar to that shown in Fig. 1, using a 6V6 output tube but it could represent any amplifier or the output stage of your receiver. The set was wired using a new capacitor which read "infinity" and the anode current of the 6V6 was approximately 30 mA. consistent with reasonable quality. The capacitor was removed from point "X" and the "suspected" capacitors inserted with the result that the anode current varied from 30 up to 80 mA. with attendant severe distortion. I'm willing to bet that under normal circumstances the coupling capacitor would be the last item to be suspected and one can imagine the feverish changing of tubes, checking of resistors and allied components in an effort to cure that distortion.

Should we find it inconvenient to insert a milliammeter in the anode circuit, as shown by "A" in Fig. 1, then a check can be made by placing a voltmeter across points "B", taking care the meter is of sufficiently high resistance so as not to greatly disturb the normal working conditions of the cir-

cuit. Any increase in anode voltage caused by a faulty capacitor being inserted at "X" will cause the voltage readings to increase. Any capacitor suspected of being faulty should be put aside and tested as soon as possible, after which (if you decide to keep it for future use) suitably inscribe it with a "skull and crossbones" plus "poison" label.

A glance at Fig. 2 will show how the "leaky" capacitor in conjunction with the following grid leak forms a voltage divider from the h.t. plus voltage on the anode of V1 to ground, and under some circumstances will buck out the negative grid voltage. There can even be a positive voltage applied with the disastrous results previously mentioned.



"OPEN-CIRCUIT" TYPE

A rather rare specimen of the capacitor family is the "open-circuit" type which pops up occasionally to cause its own particular brand of bother. This can be, in the case of anode coupling, "no sound," or in a by-pass position, oscillation and unexplainable "screwy" effects.

Recently I acquired from a picture theatre an amplifier which had been discarded as unsatisfactory and thinking it would make a nice modulator, put it on the bench for test. It utilised a phase splitter driving a push-pull stage and it certainly did not give anywhere near its rated output, in fact one of the output tubes did not seem to be doing any work at all.

After checking all components for rated values, the only things left were the 0.1 μ F. coupling capacitors, and on a substitution test the one from the cathode of the driver was found to have an "internal open circuit". There is no sign of loose leads on the capacitor and it has a heavy moulded case, also it is a brand that I had not previously encountered any trouble with. I have a collection of these specimens but am glad to say they are rather rare unless, of course, they have been subjected to physical mal-treatment.

TESTING

Well let us see if there is any way in which we can easily test our capacitor provided it shows high insulation resistance. As we all know, a capacitor will acquire a charge, the value depending on the electrical size of the capacitor and the applied voltage, and that it will discharge on joining its connecting leads together. If we place our capacitor across a source of voltage and, noting the polarity, discharge it through a milliammeter we will get a certain "kick"—the degree of which will depend on the voltage used and the sensitivity of the meter. Care must be taken that we do not damage our meter and it may be advisable to use a "multimeter" and try the higher voltage scales first. If a reasonable deflection can be obtained on the meter, it can be used as a fairly good indication of capacitance value.

In the case of small values, the headphones test will be found very handy. The capacitor is momentarily placed across a suitable source of voltage and then headphones placed across it, whereupon a "click" will be heard—the degree of which will give a reasonable indication of its value. It is a good plan to check any capacitor against a few more of similar value and then we at least know it has some appreciable capacity.

It is advisable to keep the hands away from the leads to prevent any accidental discharge as false readings may be obtained.

With the increasing tempo of constructional work being undertaken by the Amateur fraternity, I hope that the foregoing remarks may save some of them hours of frustration and they will get the habit of "Test Before Installing" and "Re-check Occasionally".

This article has dealt with the older type capacitors and I hasten to add that very little trouble has been experienced with new capacitors bought over the counter in the last year or so.

VK-ZL CONTEST

PHONE: 30th SEPT. and 1st OCT.
C.W.: 7th OCT. and 8th OCT.
1000 hrs. GMT to 1000 hrs. GMT

WANTED!

ARTICLES

Can you write an article for "Amateur Radio"? How about one for Hints and Kinks?

MODIFICATIONS TO THE BC348 RECEIVER

J. P. MOORE, G3IKR

FOR about two years after being licensed the receiver in use at G3IKR was a BC348. True, it had had minor modifications carried out, such as removal of the generator, rewiring of the heaters and the addition of an extra audio stage. Basically, however, it was still a BC348 and as such had several drawbacks, viz.: (i) Lack of selectivity; (ii) Rather noisy, especially on the h.f. bands; (iii) No bandspread; (iv) Did not tune two Amateur bands (21 and 28 Mc.).

After about two years, the performance, which had been quite good originally, began to fall off and the noise level increased. It was felt that some of the capacitors were no longer as good as they might be. Accordingly, the decoupling capacitors in the r.f. and mixer sections were removed and were in fact found to be of low resistance, and therefore useless. It was decided that, if good results were to be obtained once more, the receiver would have to be virtually completely re-built. At the same time, a number of alterations to overcome some of the drawbacks mentioned could be carried out.

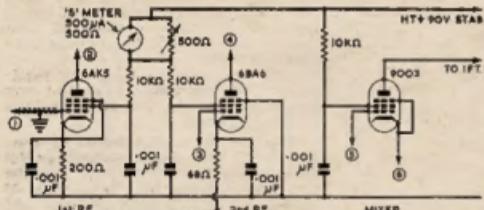


Fig. 1.—Circuit diagram of the modified "front end". The numbers 1 to 9 correspond with the numbers in Fig. 2(a).

The modifications to be described were done in three stages with some considerable time interval between the second and third. Readers may, of course, carry them all out together, and this is probably the best plan. The three stages were:

- (1) Rewiring the "front end" using more modern valves (Fig. 1).
- (2) Rewiring the remainder of the set and conversion to a double superhet (Fig. 4).
- (3) Modification of the coil packs to provide bandspread on 7, 14 and 21 Mc. as described in "The Short Wave Magazine" for Dec. '53.

The present article deals with stages (1) and (2) only.

NEW VALVES FOR THE "FRONT END"

The small sub-chassis carrying the 6K7 r.f. valves and the 6J7 mixer was removed entirely, care being taken to preserve the wire which goes from the anode of the mixer (pin 3 on the 6J7) to the first i.f. transformer. The four

coil boxes were removed by undoing the screws on top of the chassis, removing the switch rod, and unsoldering the various connections.

In each of the r.f. and mixer coil boxes, a $\frac{1}{4}$ " hole was drilled and fitted with a grommet as shown in Fig. 2(a). The wires which originally went to the grid top caps of the valves were removed from inside the cans, and pieces of new wire arranged to pass through the grommets. Plenty of spare wire was left for ease in connecting up, the leads being cut later to the exact length required. It was necessary to screen the grid wire of the 6AK5 from the grid pin to the coil box, in some cases this might not be needed.

The sides of the oscillator coil box were next removed. The 15K ohm mixer cathode resistor was replaced by a miniature 5K ohm potentiometer mounted in a convenient place on the front of the box (i.e. the side nearest the front of the receiver). The coil boxes were then replaced. (Note: If the bandspread modifications are to be carried out they should be done at this stage.)

the changes in valve and circuit capacities. This was done by using a signal from the station frequency meter, adjusting the calibration first with the oscillator trimmer and then the r.f. and mixer trimmers for maximum response using the "S" meter as an indicator. The 5K ohm potentiometer in the mixer cathode was adjusted to give maximum signal-to-noise ratio on the h.f. band. It was adjusted by ear and found to be not too critical.

The rebuilding of the "front end" alone gave a very worthwhile improvement in signal-to-noise ratio.

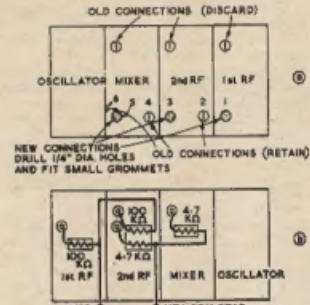


Fig. 2.—(a) Connections to the coil packs viewed from the front of the receiver. (b) Rear view of the coil packs showing the connections.

CONVERSION TO DOUBLE SUPERHET.

Changing the receiver to double conversion involved a fairly extensive rebuild. First, all the wiring and small components following the first i.f. transformer were stripped out, leaving only the valve-holders and i.f. transformers in position. The last i.f. transformer was, however, removed and replaced by the third i.f. transformer (85 Kc.) from a BC453 Command receiver.

A small sheet of 18 s.w.g. aluminium was cut to fit the space formerly occupied by the generator and on it were mounted the two remaining BC453 85 Kc. i.f. transformers, a crystal holder, and octal and B7G valve-holders.



Fig. 3.—Underneath view of the new "front end" sub-chassis showing the positioning of the valve-holders and screens. 18 s.w.g. copper screens, 1 in. deep projecting about $\frac{1}{8}$ in. beyond each valve-holder. Soldered to centre spigot and pin 4 in each case as well as to chassis at both ends.

*Reprinted from R.S.G.B. "Bulletin," Aug. '58.

The three-position switch on the front panel was removed and a 5K ohm wire-wound potentiometer mounted in its place as r.f. gain control. The combined a.f./r.f. potentiometer was removed and replaced by a $\frac{1}{2}$ megohm audio gain control. A single-pole toggle switch was installed for a.v.c. on/off control. The output valve-holder was replaced by an octal type for a 6J5 audio stage. The output transformer was removed and a small sub-chassis cut from 18 s.w.g. aluminum to take its place; on this were mounted a BTG valve-holder and a small potted output transformer taken from the BC453. The circuit was then wired up as shown in Fig. 4, group boards being used where possible for the small components.

The use of the original 915 Kc. b.f.o. is not really recommended, but when the modifications were carried out an 85 Kc. b.f.o. coil was not available. The 915 Kc. b.f.o. is quite stable and produces a T9 note, but as the main interest at GJIKR is telephony working, the b.f.o. has never been altered. For serious c.w. work a variable injection b.f.o. at 85 Kc. is recommended.

The value of Rx in the b.f.o. anode circuit was found by trial to give optimum injection and depends upon the circuit layout. A value of 68K ohms is suggested as a start.

No details of the audio stages are given as some people like 10 watts of hi-fi, others being content with a low power stage driving headphones only.

The circuit used in the writer's receiver incorporates a "Selectoject," an EL91 being used as a low power output stage giving ample volume with a 5" speaker.

In spite of previous articles to the contrary, a 1 Mc. crystal is perfectly satisfactory as a second oscillator, although in fact a 500 Kc. crystal will work equally well. Accurate 1 Mc. beats are produced throughout the tuning range which are useful for band-edge marking. The frequency can be adjusted to exactly 1 Mc. by adjustment of the trimmer across the crystal. The other trimmer in the second oscillator circuit should be adjusted to give sufficient injection; its setting is not all critical.

Re-alignment will be necessary after these modifications have been carried out. Originally the receiver was realigned using the station v.f.o. and the "S" meter, as no proper equipment was available. It was afterwards checked using a wobbulator and oscilloscope and found to be very near the optimum position. No details for re-alignment are given as it is felt that those who carry out these modifications will have the necessary "know-how" and probably the equipment required to do it satisfactorily.

The provision of bandspread has been fully described elsewhere¹ and will not be dealt with here. Suffice it to say that the modification is very worthwhile both as regards actual bandspread and the increased performance effected by the better L/C ratios which are obtained.

RESULTS

Results have been better than expected, although it was unfortunate that a standard BC348 was not available for direct comparison. On the DX bands the modified receiver compares favourably with an AR88 as regards signal-to-noise ratio and sensitivity and runs it a close second for selectivity, the main disadvantage being lack of variable selectivity. After three years' use the writer is still unable to work all that he hears, probably due to the long wire aerial which is in use. Ninety-seven countries have been worked, mostly on 21 and 28 Mc. phone with comparative ease. On the latter band a modified RF24 unit, using 6AG5 valves, feeds into the receiver on 7 Mc.

¹ "Bandspreading the BC348," M. A. Ryan (EDT), "Short Wave Magazine," Dec. '63.

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REMEMBRANCE DAY CONTEST

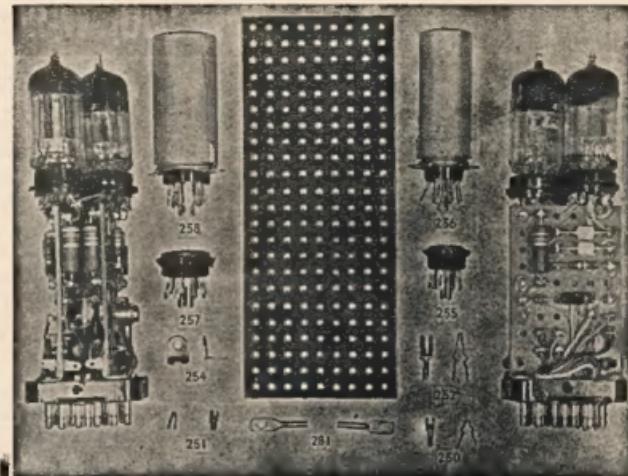
12th and 13th AUGUST, 1961
1800 hours to 1759 hours E.A.S.T.

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Type No.	D.C. Output M.V.	O.C. Output Volts	A.C. Secondary Volts	Filaments Volts Amps.	Effective (Secondary*) Ohms	Weight lbs. oz.	Overall Height inches	Mounting Dimensions inches	Base Dimensions inches	Mounting Type
2062	80	290 265	115 TAP 105	4.3 C.T.-3.25	25	8 2	3 1/2	2 1/2 x 2 1/4	2 1/2 x 2	VLM 31
2063	80	340 315	135 TAP 125	4.3 C.T.-3.25	29	8 3	3 1/2	2 1/2 x 2 1/4	2 1/2 x 3	VLM 31
2064	125	340 315	135 TAP 125	4.3 C.T.-3.25 6.2-2.25	16	4 15	3 1/2	2 1/2 x 2 1/4	2 1/2 x 3 1/4	VLM 34
2065	150	290 265	115 TAP 105	4.3 C.T.- 6	18	5 10	3 1/2	2 1/2 x 2 1/4	2 1/2 x 3 1/4	VLM 34
2066	190	320 285	125 TAP 105	6.3 C.T.- 6	7	6 8	3 1/2	3 x 2 1/4	4 x 3 1/4	VLM 34

Note* — Effective Transformer Series Resistance referred to Secondary

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FURTHER NOTES ON THE BC221 FREQUENCY METER

ALAN H. REID,* VK3AHR

THE BC221 ("Bendix") Frequency Meter is certainly a very valuable instrument in the Ham shack. Apart from its main purpose in life, it is useful for lining up tuned circuits, as a source of audio frequency tones, as a v.t.o. for the transmitter, etc., etc. An article by VK2AQU in "A.R." last November discussed the accuracy of this meter and, in the hope that I can add something to this interesting subject, I offer some further comments.

To my mind, it seems quite pointless discussing the accuracy statements published by the manufacturer at the time these meters were put out. It is a long time ago, and at least some of the operating hazards mentioned are not encountered in Ham use. Rather I prefer to make my own calibration; this is not such a long job as it might sound, as accurate calibration is required only from 3500 to 3700 Kc. My method, as given below, is based on Models "AF" and "AL," but I believe it applies to all meters of the BC221 type.

RE-CALIBRATION

First of all, inspect the meter closely for mechanical deficiencies and clean off any signs of corrosion. With a beat note audible in the headphones, check that all controls, etc., are free of noise and that the unit is "solid" electrically. The h.t. power supply should preferably be regulated and the meter warmed up for at least 15 minutes before proceeding with calibration. Actually, I allow at least one hour stabilising time.

With the station receiver tuned to WWVH on 15 Mc., and with its b.f.o. off, pick up some output from the meter by means of a short length of wire attached to the BC221 antenna terminal. This wire may be several feet long and is draped in the vicinity of the station receiver front-end. There should be no need to connect it electrically to the receiver antenna terminal although this might be permissible if it turned out to be necessary.

Turn the BC221 mode switch to the "crystal check" position and a beat note should be heard in the receiver. This is the 15th harmonic of the 1000 Kc. crystal within the meter, beating with the carrier of WWVH; it should not vary when the frequency meter tuning dial is moved or when the station receiver is detuned. If no beat is heard, check your coupling arrangements; if still no beat, then either your crystal is zero beat with WWVH (as it should be) or well off frequency.

The nameplate on the front of the meter is held on with four screws. Remove this and you will see a screwdriver adjustment which is a small variable capacitor wired directly across the 1000 Kc. crystal. Turning this should allow you to hear both sides of the beat note in the receiver. Set accurately to as close to zero beat as you can estimate and replace nameplate. This final setting should be done during the interval that WWVH is not

sending out an audio frequency tone. This interval occurs every fifth minute, during which the one-second ticks remain and a voice and code announcement is given out. The standard crystal within the BC221 is now set to 1000 Kc. to a high order of accuracy.

Now to check how the calibration of the instrument has stood up against the shocks, temperature and humidity changes and general abuse of the last couple of decades. The calibration book lists ten "crystal check points" in the low band and fourteen in the high band. When the meter was ready for calibration in the factory, the corrector was, no doubt, left untouched in one position, probably the centre of its range throughout the entire calibrating procedure. The readings on the dial of all these check points would then have been noted and printed on the bottom of the relevant pages of the calibration book, as well as against the respective frequencies in the body of the book. After this, no doubt all the other readings in the book were filled in using external known frequencies at the required close intervals.

It seems to me important to note that, when the meter was brand new, all the C.C.P.s. would have been "spot on" when compared with the readings in the book, once the corrector was set to any one of them. The corrector is fitted, of course, to allow for changes in value of the two oscillator inductances and for capacity changes (in the tuning capacitor and elsewhere) that would undoubtedly occur with time. Should the working range of this corrector get too far over to one side or the other, it may, incidentally, be centralised by two parallel pre-set capacitors (one for low band and one for high band) mounted at the side of the chassis. See VK2AQU's article for further details.

All BC221's I have used, and probably all such units in use today, require correcting to the various C.C.P.s. as one proceeds from the bottom to the top of each range. The calibration book says "correct at the nearest check point and go right ahead," but what does the thinking Ham do if two neighbouring check points disagree by a sig-

nificant amount and he wishes to establish a frequency somewhere in the middle? For instance, one meter I owned was 3 Kc. off the C.C.P. at 14,667 Kc., after correcting accurately at 14,000 Kc. Re-calibration was obviously desirable when working around 14,300 Kc. My present BC221 happens to agree within about 300 cycles at the points just mentioned so I just split the difference when setting the corrector and take the readings in the book as pretty accurate.

It is apparently not well known that there are many other C.C.P.s. throughout the range of this frequency meter. These are genuine, usable crystal check points and I have a schedule of 40 of them throughout the low band and 45 in the high band. Many others of weaker intensity could also probably be identified and used.

The following table shows the five listed C.C.P.s. between 3500 and 3666.7 Kc., each with its approximate relative output and make-up details.

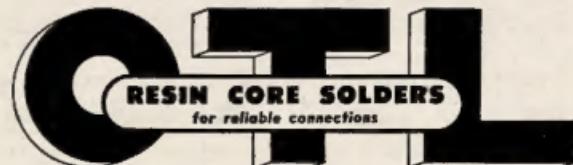
C.C.P.	Fund. No.	Output Freq.	Rel. mW.	Het. Harm.	Xtal Harm.
34*	3500	34.0	2	7	
35	3571	0.3	7	25	
36	3600	3.4	5	18	
37	3625	0.2	8	29	
38*	3666.7	25.0	3	11	

* Listed in calibration book.

This table shows, for example, that one would expect to hear the 5th harmonic of the heterodyne oscillator beating with the 18th harmonic of the crystal, at an intensity of about 3.4 mW. in the headphones. This will occur at 3600 Kc.

The above five frequencies covering the Ham bands are probably sufficient to enable the preparation of a large-scale calibration curve for the meter over this range. I would expect this curve to give readings, at 3.5 Mc., within 250 cycles of the true frequency and to retain this accuracy, under Ham conditions, for years. A loss of accuracy would be made evident, if and when it occurred, by the necessity to use the corrector when moving to the higher check points, after setting on that at 3.5 Mc.

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REMEMBRANCE DAY CONTEST, 1961

A handsome perpetual trophy is awarded annually for competition between States inscribed with the names of those who made the supreme sacrifice, and so, perpetuating their memory throughout Amateur Radio in Australia.

The name of the winning Division each year is also inscribed on the trophy. In addition, the winning Division will receive a suitably inscribed framed photograph of the trophy.

Objects

Amateurs in each Call Area (this includes those in Australian Mandated Territories and Australian Antarctica) will endeavour to contact Amateurs in all other Call Areas (VK1 and VK2 are considered to be the one Call Area. Likewise VK5 and VK8.)

Date of Contest

12th and 13th August, 1961.

Duration

From 1800 hours E.A.S.T., 12th August, to 1759 hours E.A.S.T., on 13th August, 1961. A period of 15 minutes' silence will be observed by all stations on 12th August, immediately prior to the start of the Contest when an appropriate broadcast will be made from VK3WIA and relayed by the Divisional Stations.

RULES

1. There shall be four sections to the Contest:

- (a) Transmitting Phone.
- (b) Transmitting C.W.
- (c) Transmitting Open.
- (d) Receiving Open.

2. All Australian Amateurs may enter the Contest whether their stations are fixed, portable or mobile, but only members of the W.I.A. are eligible for the Awards. Portable-mobile operation is defined as transmitting and/or receiving equipment which is not connected to any private or public power mains or plant.

3. All Amateur frequency bands may be used, but no cross-band operation is permitted.

4. Amateurs may operate on both phone and c.w. during the Contest (e.g. phone to phone, c.w. to c.w., or phone to c.w. and vice versa), but may submit an entry for only one of the above Sections listed in Rule 1.

An Open log will be one in which points are claimed for both phone and c.w. transmissions.

A contestant transmitting on phone but receiving on c.w. must enter for the phone section (and vice versa). Refer to Rule 11 concerning entry in logs.

• The Federal Contest Committee of the Wireless Institute of Australia wishes all Australian Amateurs and Short Wave Listeners to participate in the Annual Contest which is held to perpetuate the memory of those Australian Amateurs who gave their lives for their country during World War II. It is held on the week-end nearest to the 15th August, the date on which hostilities ceased in the S.W.P.A.

5. Only one contact per station per band is allowed and arranged schedules for contacts on other bands is not permitted.

6. Only one licensed Amateur is permitted to operate any one station under the owner's call sign. Should two or more operate any particular station, each will be considered a contestant and must submit a separate log under his own call sign.

Contestants operating stations other than their own shall be referred to, for the purpose of these rules, as "substitute operators". Their operating procedure shall be as follows:

Phone contacts: Substitute operators will call "CQ Remembrance Day" followed by the call sign of the station they are operating and the word "log" followed by their own call sign.

C.w. contacts: Substitute operators will call "CQ RD de" followed by the group call sign comprising the call sign of the station they are operating, an oblique stroke, and their own call sign.

Contestants receiving signals from a substitute operator will qualify for points by recording the call sign of the substitute operator only.

7. Entrants must operate within the terms of their licences.

8. **Cyphers:** Before points may be claimed for a contact, serial numbers must be exchanged and acknowledged. The serial number of five or six figures will be made up of the RS (telephony) or RST (c.w.) reports plus three figures starting from 001 for the contact and which will increase in value by one for each successive contact. If any contestant reaches 999, he will start again with 001.

9. Entries must be set out as shown in the example, using only one side of the paper, and wherever possible standard W.I.A. log sheets should be used.

Entries must be postmarked not later than 2nd September, 1961, and addressed to the Federal Contest Committee, W.I.A., Box 8319, G.P.O., Hobart, Tas.

EXAMPLE OF TRANSMITTING LOG

Date/ Time E.A.S.T.	Band	Emis- sion	Call Sign	RST Nr. Sent	RST Nr. Rev'd.	V.h.f. Bonus	Points Claim'd.	—

Note.—Standard W.I.A. Log Sheets may be used to follow above form.

EXAMPLE OF RECEIVING LOG (VICTORIAN S.W.L.)

Date/ Time E.A.S.T.	Band	Emis- sion	Call Sign Heard	RST Nr. Sent	RST Nr. Rev'd.	Station Called	V.h.f. Bonus	Points Claim'd.	—
Aug '61 12 1802	7 Mc.	AZ	VK5XU	50001	—	VK3XU	—	2	—
12 1805	"	"	VK5HNU	50004	—	VK3DR	—	5	—
12 1115	50 ..	"	VK4RZ	47135	—	VKSQR	25	3	—

Note.—Standard W.I.A. Log Sheets may be used to follow the above form.

10. Scoring will be based on the table shown:

SCORING TABLE

From	VK0	VK1-2	VK3	VK4	VK5-6	VK7	VK8
VK0	—	6	6	6	6	6	6
VK1-2	6	—	1	2	3	5	4
VK3	6	1	—	3	2	5	4
VK4	6	1	2	—	3	6	5
VK5-8	6	2	1	3	—	5	4
VK6	6	1	2	4	3	—	5
VK7	6	2	1	4	3	5	—
VK9	6	1	2	3	4	5	6

Note.—Read table from left to right for points for the various call areas.

In addition a bonus of 25 points may be claimed for the first contact in each area on 50 Mc. or above.

11. All logs shall be set out as in the example shown and in addition will carry a front sheet showing the following information:

Name..... Section.....
Address..... Call Sign.....

Claimed Score.....

Declaration: I hereby certify that I have operated in accordance with the rules and spirit of the Contest.

Signed.....

Date.....

All contacts made during the Contest must be shown in the log submitted (see Rule 4).

Entrants in the Open Section must show phone and c.w. contacts in numerical sequence.

12. The right to disqualify any entrant who, during the Contest, has not observed the regulations or who has consistently departed from the accepted code of operating ethics.

13. The ruling of the Federal Contest Committee of the W.I.A. will be final. No disputes will be entered into.

14. Certificates will be awarded to the winners of the phone, c.w., open and receiving sections in each call area (Northern Territory will count as a separate call area). There will be no outright winner for Australia. Further Certificates may be awarded at the discretion of the Contest Committee.

The State to which the Perpetual Trophy will be awarded shall be determined in the following way:

To the average of the top six logs shall be added a bonus arrived at by adding to this average, the ratio of

logs entered to the State Licences, multiplied by the total points from all entries

Example:

Average of the top six logs +

$$(\text{Logs Entered} \times \text{Total of Points}) / \text{State Licences from all Entrants}$$

Acceptable logs shall show at least five valid contacts.

The Trophy shall be forwarded to the winning State in its container and will be held by that State for a period of twelve months.

Note. The F.C.C. emphasises the need for strict observance of Rule 9 in the Transmitting Section and Rule 3 in the Receiving Section.

RECEIVING SECTION

1. The Receiving Section is open to all Short Wave Listeners in Australia, no Transmitter Station may enter.

2. Contest times and logging of stations on each band are as for transmitting.

3. All logs shall be set out as shown in the example. Logs must show first the call sign of the station calling (not the station being called), the serial

number sent by it and then the call sign of the station being worked. The scoring table to be used is the same as that used for transmitting and points must be claimed on the basis of the State in which the receiving station is located. A sample is given to clarify the position.

It is not sufficient to log a station calling CQ nor is it permissible to log a station in the same call area as the receiving station.

For purposes of the Contest, VK1 and VK2 are considered to be in the same call area, likewise VK5 and VK8.

4. A station heard may be logged once on phone and once on c.w. for each band.

5. Club receiving stations may enter for the Receiving Section of the Contest, but will not be eligible for the single operator award.

However, if sufficient entries are received a special award may be given to the top scoring receiving Club station. All operators must sign the Declaration.

6. **Awards.** Certificates will be awarded to the highest scorer in each call area. Further certificates may be awarded at the discretion of the Federal Contest Committee.

7. **Awards.** Certificates will be awarded to the highest scorer in each call area. Further certificates may be awarded at the discretion of the Federal Contest Committee.

A MESSAGE FROM HONG KONG

As President of the Hong Kong Amateur Radio Transmitting Society, I (V86DS) would like to take this opportunity which has been kindly offered by VK3YQ, to send greetings to the President, officers and members of the Wireless Institute of Australia, in this the 31st year of our existence as a Society.

Although small in numbers, we lack nothing in interest, and our enthusiasm makes up for our smallness, enabling us to play a not insignificant part in the field of Amateur Radio. Nevertheless we look to the Wireless Institute of Australia and the New Zealand Amateur Radio Transmitting Society as being the natural leaders in the field of Zone 3. We like you, hope that in combination with other Societies in the area it will be possible to create further activity under the auspices of the International Amateur Radio Union for the benefit of all Amateurs in this zone.

Of particular significance in this respect and which I would like to draw attention to at the present time, is the very vexed question of intruders in Amateur bands, for it seems to us that it would be better by far if we could pool the information which becomes available on these intruder stations, so that a case could be made to the International Amateur Radio Union for Zone 3 as a whole, rather than representations on a solely national level.

As members of an international body we are constantly reminded of the good fellowship which is automatically engendered in the pursuit of our hobby, and in our constant contact with each other across natural and international boundaries. In this connection I trust you will forgive me if I draw your attention to a particularly fine example

of the spirit which has recently occurred.

In Hong Kong we publish a small newsletter, and we are very pleased to see occasional extracts reprinted in the more ambitious magazines of the larger organisations. This news-sheet of ours is intended primarily for local consumption, and when recently an appeal was made to local members for back numbers of various publications to complete the Society's volumes, the fact that this item would also be read by others was entirely overlooked.

To our surprise, a few weeks later a parcel of "QSTS" containing all the missing numbers arrived unannounced with the compliments of the Secretary of the Amateur Radio Relay League. This was indeed a surprise, and does demonstrate the international fellowship which exists in the field of Amateur Radio, but a further surprise was in store for us, for via VK3YQ, we have now received quite independently from Mr. J. Lancaster, the Federal Secretary of the W.I.A., the back numbers of "Amateur Radio" which we also were missing. As an unsolicited and totally unexpected example of the spirit of Amateur co-operation, I consider this would indeed be very hard to beat.

In wishing you all the very best of luck and plenty of DX from Hong Kong, may I quote a few lines from Kipling which used to appear in our pre-war magazine under the title of Radio Amateur, which expresses far better than I can, the spirit of Amateur Radio:

Only the master should praise us
Only the master should blame
No-one shall work for money
No-one shall work for fame

The above was taken from a speech by V86DS, recorded in Hong Kong by VK3YQ, and printed by "A.R." for general interest of all Australian Amateurs.—Ed.

1960 "CQ" C.W. Results

Number groups after call letters denote the following: Band, final score, number of QSOs, zones and countries.

VK2GW	A	326,686	593	76	118
VK2APK	A	35,944	282	28	44
VK3ADB	A	45,380	214	34	36
VK3YD	A	5,800	60	17	23
VK3TL	A	5,615	78	13	13
VK3APV	A	5,480	67	14	14
VK3XB	A	5,148	55	15	15
VK4SD	A	5,680	52	18	22
VK4XW	A	3,860	68	10	10
VK5JT	A	12,528	102	23	21
VK5MP	A	5,920	58	21	19
VK5RX	A	9,780	76	17	17
VK5LJ	A	7,720	15	7	9
VK6GRU	A	280,878	486	73	114
VK7SM	A	58,286	235	41	51
VK7KA	A	13,912	110	21	26

First All Asian DX Contest

Results of the First All Asian DX Contest, conducted by the Japan Amateur Radio League, are now to hand. The outright high score was 4X4JU with 55,900 points. Australian scorers were (M indicates multi-band operation).

VK9XK	M	2640 pts.
VK5NQ	M	2087 "
VK2GW	M	1470 "
VK6RU	M	567 "
VK7WA	M	342 "
VK7JB	M	240 "
VK5JT	M	24 "
VK2DI	M	28 220
VK4SD	M	14 368 "
VK5KU	M	14 72 "

SECOND ALL ASIAN DX CONTEST

1. Contest Period: 26 hours from 1000 GMT 26th August, 1961, to 1000 GMT, 27th August, 1961. (During the last week-end, August, every year.)

2. Contest Call: Stations participating in this Contest will call CQ AA2.

3. Bands: The following Amateur bands may be used during the Contest: 3.5, 7, 14, 21, and 28 Mc.

4. Type of Emission: C.W. only.

5. Type of Competition: (a) Single operator, single operator; (b) Multiband, single operator.

6. Equipment: There is no limit to the number of tx's and rx's allowed and competitors may use the maximum power permitted under the terms of their license.

7. Serial Numbers: (a) For OM stations: The serial numbers of five figures will consist of the RST reports plus two figures of their own.

(b) For RST stations: If your age is 35, the number will be RST plus 35.

8. For VFO stations: The serial numbers of five figures will consist of the RST reports plus the figures of "00" (zero, zero).

9. Points as Multiplier: (a) For Non-Asian stations: A contact with one non-Asian station will count one point and a multiplier of one for each Asian country on each band.

(b) For Asian stations: A contact only with a non-Asian station will count one point and a multiplier of one for each non-Asian country listed in DXCC and WAE country lists.

10. Scoring: (a) The score of each single band is the country multiplier for that band, multiplied by the total contact points on that band.

(b) The total of all band score is the sum of country multiplier of all bands, multiplied by the total of contact points on all bands.

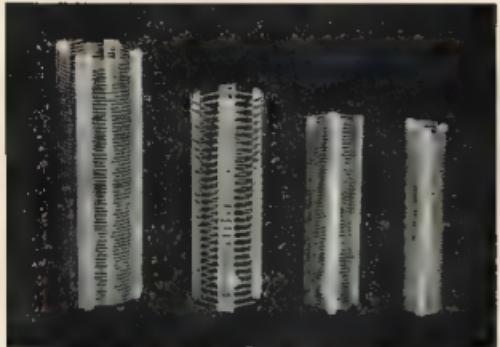
11. Special Award: In addition, a special cup will be awarded to the highest scoring single operator on multiband in each continent.

12. Deadlines: All logs must be postmarked not later than 30th September, 1961. Send logs directly to J.A.L. All Asia DX Committee, P.O. Box 377, Tokyo Central Japan.

Details of log pro forma may be had on application to the W.I.A. Federal Contest Committee or the Federal QSL Bureau.

FOR AMATEUR OR PROFESSIONAL USE

WILLIS AIR-WOUND INDUCTANCES



AIR-WOUND INDUCTANCES

	Diam.	Turns per Inch	B. & W.	Price
No.			Length	Equiv.
No. 1-08	1/2"	8	3"	No. 3002 5/3
No. 1-16	1"	16	3"	No. 3003 5/3
No. 2-08	1 1/2"	8	3"	No. 3006 6/3
No. 2-16	1 1/2"	16	2 1/2"	No. 3007 6/3
No. 3-08	2"	8	2 1/2"	No. 3010 7/4
No. 3-16	2"	16	2 1/2"	No. 3011 7/4
No. 4-08	2 1/2"	8	3"	No. 3014 8/5
No. 4-16	2 1/2"	16	3"	No. 3015 8/5
No. 5-08	3 1/2"	8	4"	No. 3018 10/6
No. 5-16	3 1/2"	16	4"	No. 3019 10/6

Take the hard work out of Coil Winding—
use "WILLIS" AIR-WOUND INDUCTANCES

"WODEN" MULTI-MATCH MODULATION TRANSFORMER

FEATURES:

- ★ Potted type compound filled (vacuum impregnated).
- ★ Universal application.
- ★ Primary impedance range: 2,000 to 18,000 ohms.
- ★ Secondary impedance range: 200 to 21,000 ohms.
- ★ Highest efficiency—lowest weight per watt.
- ★ Easy to solder heavily silver-plated tags.
- ★ Above or below chassis wiring.
- ★ Audio capacity: From 10 to 250 watts.

List	Audio	Watts	Max. Sec.	Overall Size	Weight	Price
No.	Watts	RF In.	Current	L. W. H.	Ib. oz.	inc. Tax
UM0	10	20	60 mA.	2 1/2" x 2 1/2" x 3 1/2"	2 8	£5 10 0
UM1	30	90	120 mA.	2 1/2" x 3 1/2" x 3 1/2"	5 8	£7 12 6
UM2	60	120	200 mA.	5 1/2" x 4 1/2" x 5 1/2"	11 8	£10 13 3
UM3	120	240	250 mA.	5 1/2" x 5 1/2" x 5 1/2"	14 8	£7 12 6

"Woden" Modulation Transformers can also be used in output stages of high powered public address equipment.

SPECIAL—WHILE THEY LAST!

MODEL 4/103 V.F.O. UNIT EXCITER FREQUENCY RANGE: 144-148 Mc.

R.F. Power Output: Sufficient to drive an 832 or 2Z68. Valve Line-up: Two 6CL5 oscillator multipliers, one 12AT7 multiplier, and one 5763 driver. The unit incorporates two different oscillator multipliers, one variable for establishing communication, one xtal-controlled fixed freq. osc. for working.

£6 EACH (Valves Extra)

WILLIAM WILLIS & Co. Pty. Ltd.

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AMATEUR ACTIVITY AT 1961 ALICE SPRINGS SHOW

The second annual show was held on 18th and 19th May, in bright, warm, 70 degrees weather, under cloudless skies.

Bill VK3EW set up his gear in the machinery pavilion (so-called), but a better name would have been the miscellaneous pavilion. Two calves were the main attraction, and the average size did they give any QRM? Ask anyone we worked! Those puppies wanted their Mums, and they told the world—literally!

Considering the modulated milk bottles already mentioned, spark plug tests, portable chain-saw, among other things, we did quite well, working 37 stations in 11 countries.

Halpe VK3ENR popped into the pavilion occasionally to help Bill and me. VK3EUX was the rig operator. Me during the day and night 14 and 3.8 Mc. at night. Graham Jenkins who is waiting for his full ticket to be issued, enjoyed a couple of goes at the milk.

To maintain public interest, VK3EW was the object of our efforts, and those stations with good signal strengths were QSOed. Quite lively interest was shown by the public and several people enjoyed saying "Hello" to somebody in a distant land, but a surprising number would come from "Mike" right next door, shown by teenagers, both girls and boys, was gratifying.

On Saturday, Ken VK3KSR told us that Gen VK3EJZ was at Ayers Rock with a Typewriter and a typewriter ribbon. We went to see him on Sunday. Sure enough, when I went out to the Motel, there he was stringing wires from hills and trees with gay abandon. Later that night he put an A.B. signal down into VK3EW's antenna, an effort well worth it.

Stations reported from the Show included a number from VK3EJZ, 3, 5 and 6 on various bands ZL3LRB joined in a round-table of eight stations on 80 m on the Friday night, and VK3EKO was worked.

Bill DX included 451GE in Central Ceylon and who had to survive some QRM, KASHA, who was 59 for a 40-minute yarn, W6YWL who had to rush off to watch his favourite TV show, KHDJOV, Kimo, who was very happy because he had a new car, and kept us company for 14 hours, 50-50 the way, KJ2CZ from Portland, Oregon, ZL1PV, VK3PFI, KYCJ who came back to us on c.w.: WASLCK, who had a fine contact for the Interning VK3EJZ. Dan VK3EJZ put up a transverters signal and had been climbing up and down his tower in 85 degrees and high humidity to adjust his cubical quad, but the result was worth it; ZE1JR was cooking a very early breakfast, and after putting up an 89 plus signal at the same time, BMQAS rounded off a couple of days' operating.

Bill's rig was a Geico front-end feeding a buffer and an 811 on 100 watts, and an R.F. receiver. The aerials were dipole and in a bundle of water-pipe which were bent and tied to the tennis-court floodlight standards, giving about 40 feet in all.

I reckoned that I had spark-plugs in my ears at the end of the second day, but we felt that we had given Ham Radio a boost up here in the Centre.



STATISTICS RE DXCC

To work DXCC is not an easy task due to the lack of amateur stations in various countries. It is assumed that you can probably work one per cent. of the Amateurs in a particular country, then you should have no difficulty in obtaining the following contacts: CE, CM, CN, CNR, CP, CRG, CTB, CX, DJ, DK, E, EA, EP, F, FA, G, GA, GB, GC, GH, HK, HI, IT, JA, KA, KH, KL, KP, KR, KZ, LA, LU, OA, OH, ON, OQ, OZ, PAO-P1, PY, SM, SE, TG, TI, VE, VK, VU, W-K, YE, YN, YU, ZE, ZL and ZE4. But this amounts to only fifteen per cent. so that to work DXCC will be necessary to work say two per cent. of the remaining Amateurs in the other countries which have fifty or more licensed stations. These countries would be: DU, EL, IH, IP, HR, KG, KV, KW, VQ, VY, VZ, VZL and VZL.

By so doing you have added another eleven countries; thereby making your total sixty-five, but you still have to work an additional thirty-five countries which will have fifty or more amateur stations. To obtain DXCC is a difficult task, but the statistician's point of view (which neglects the m.u.f. signal difficulties, and the XYL). Therefore it is a hallmark to show DXCC on your QSL card so congratulations to those who succeed.

Book Review

"A TO Z" IN AUDIO*

By G. A. Briggs with R. E. Cooke as Technical Editor.

This 224 page book provides a comprehensive technical dictionary of terms applied in audio. It is very well illustrated and many engineers would find it a very useful reference book. Several cartoons amply express a point and the clear diagrams help the text.

Various illustrations are actual do-it-yourself projects, so the book has a practical as well as a theoretical use. It would be a very useful adjunct to the audiophiles library and could prove a popular addition to any library. The reader will gain from reading this book. The price is 26/6 post free.

Our copy was supplied by McGill's Authorised Newsagency, 183 Elizabeth St., Melbourne.

"HOW TO USE GRID DIP OSCILLATORS"

By Rufus P. Turner (No. 245 in the Rider publication series).

This 103 page booklet covers in ten chapters the full scope of that most useful instrument, the g.d.o. Every Amateur should be familiar with the g.d.o., but after reading this well prepared and amply illustrated booklet, he would be in a better position to obtain the maximum advantage from this very versatile piece of gear.

This is a practical booklet and each chapter shows how a specific measurement may be made. Whilst the writer shows how the measurement is to be made, this reviewer considers that it would be an advantage to also state the limits of inaccuracy in the method adopted, however this comment should not detract from an excellent publication that the progressive Amateur should have for ready reference. The price is 26/6 plus 1/- postage.

Our copy from McGill's Authorised News-agency.

"RADIO AMATEUR'S HANDBOOK"

38th Edition, 1961

After thirty-five years of publication by the American Radio Relay League, it becomes difficult to review a book that has won such world-wide acceptance, so this review will be directed towards those who already possess an old edition of the A.R.R.L. Handbook. If the reader does not already have a copy it can be said that this book is a must for every Amateur shack. It is also a book widely found in other locations where electronics are used, and research laboratories, schools, libraries, universities, etc., all find it a valuable reference source.

The twenty-five chapters have become standardised during the years as regards their format, but each edition sees the addition and deletion of various data. For this reason it is well worth while purchasing the latest edition, even though you may already have an earlier copy.

The first three chapters follow the principle of briefly telling the facts regarding the electrical cornerstones of radio, capacity, inductance, and resistance. The fourth chapter outlines the

semi-conductor devices which are playing an increasing important task in electronics.

Construction of receivers is fully dealt with in chapter five, and well illustrated diagrams make the construction an easier task. Chapters six to twelve deal with all facets of transmitters, and the associated transmission lines, aerials, and wave propagation are covered in the next three chapters.

V.h.f. receives special attention with a further three chapters devoted to this art. Then chapters 19 to 24 cover the other parts of Amateur Radio such as mobile, test gear, measurements, and b.c.l. and t.v.i.

The final chapter (25) is particularly useful as it covers vacuum tubes, and this index provides a most comprehensive data sheet which is an excellent reference source.

The A.R.R.L. Handbook, if intelligently used, will provide the construction details, theory, and general information required by every Amateur Radio operator. It is a standard reference work which is an essential part of every Amateur shack.

Our copies from McGill's Authorised Newsagency, 183 Elizabeth St., Melbourne, and Technical Book & Magazine Co., 228 Swanston St., Melbourne. Priced at 46/- plus postage.

"TUBE AND SEMICONDUCTOR GUIDE"

By T. J. Kroes, Philips Tech. Library

This 180-page booklet, 6 x 9 inches, is a most valuable addition to any library or organisation which deals with electronics.

It comprises eight sections plus a translation text in French, German and Spanish. The sections are: interchangeability list, valves radio, cathode ray tubes, transmitting tubes, microwave

K7TQN TO CO-ORDINATE CIVIL DEFENCE

Robert L. Spencer, Sr., K7TQN, 207 Santa Clara Ave., has been appointed group co-ordinator of Civil Defence with the additional duty of Air-Sea Rescue Unit Information Officer for Los Angeles, Group 2, Local Air Force.

The announcement was made by Major E. W. Parmenter, commander of the First Air-Sea Rescue Unit based at the Port of Redwood City. Parmenter, who lives at 1974 Alameda, said he had been asked by the Commandant of Civil Air Patrol and Civil Defence to co-ordinate the air sea search and rescue activities of the local organization with city and county directors of Civil Defence and disaster mobilization for drills and exercises and radiological detection.

Robert K7TQN, a Redwood City business executive, last September was appointed radio officer for the Redwood City Civil Defence and Disaster Communications network and is a graduate of the O.C.M.C. Civil Defence and Instructional courses. He is married and has one son, Robert Jr., 14, presently stationed in Germany where he is attached to the 14th Engineers Battalion of the Army.

50 Mc. W.A.S.

Call	Cer. Add.	Call	Cer. Add.
No. Catr.	No. Catr.	No. Catr.	No. Catr.
VK2WJ	13 6	VKEOW	3 1
VK2ZFM	22 4	VKEQR	6 1
VKEIR	1 1	VKEPT	7 1
VKEJZ	5 2	VKEQZ	19 1
VKEZABC	8 3	VKEXA	11 1
VKEZW	9 3	VKEGM	12 1
VKSOG	18 3	VKEACL	14 1
VKSZAX	20 3	VKEZD	18 1
VKSZEL	31 3	VKEHO	17 1
VKEARY	2 2	VKEEA	18 1
VKSCLC	1 1	VKEWH	15 1

tubes, industrial types, miscellaneous, and semi-conductors.

Each section contains recommendations for the preferred tube type, a classified list, base connections, socket diagrams, and general data pertaining to that tube type. A most useful feature is an explanation of the tube designation code, which covers European and the E.I.A. system.

This is a well prepared and solid bound booklet, and this no doubt reflects the hard wear it will take when purchased. It will prove a most valuable addition to all who have to concern themselves with tubes (valves) and rapidly require to ascertain their salient characteristics, then decide upon the preferred type.

Our copy from Philips Electrical Industries Pty. Ltd. Copies should be available from any Philips office or large booksellers. Price 17/- plus postage.

LOW DRIFT CRYSTALS

FOR AMATEUR BANDS

ACCURACY 0.02% OF
STATED FREQUENCY

3.5 and 7 Mc.

Unmounted, £2/10/0

Mounted, £3/0/0

12.5 and 14 Mc.
Fundamental Crystals,
"Low Drift,"

Mounted only, £5.

THESE PRICES DO NOT
INCLUDE SALES TAX.

Spot Frequency Crystals
Prices on Application.

Regrinds £1/10/0

MAXWELL HOWDEN

15 CLAREMONT CRES.,
CANTERBURY, E.7,
VICTORIA

Correspondence

Any opinion expressed under this heading is the individual opinion of the writer and does not necessarily coincide with that of the publishers.

ROSS HULL CONTEST

Editor "A.R." Dear Sir,
It is appreciated that letters to the Editor concerning specific discussions can only be granted limited time and space, but I trust that this important subject has not to date been dispensed with.

With the exception of a brief reference to a letter by 4ZAA, as mentioned in David 3QV's most recent correspondence, it would seem that the V.H.F. Group in Queensland is as complacent as ever—*including F.C.C.* in regard to existing rules.

If the comments heard from other States towards the end of last season, and if the many differences of opinion locally are any indication, then the discussion on this point must be undoubtedly, but on the surface, with the exception of letters and notes apparently accompanying contest logs, little concrete effort seems to have been made to develop generally acceptable changes.

That is the state of the letter from 4ZAA to which David refers. It was compiled not as a singular effort, but consisted of the net result of joint opinions from all of the v.h.f. operators in Brisbane who were interested in the Ross Hull and who see no value in operating under the present rules.

Unfortunately, although quite some months have passed, we have not been favoured with a reply, and it is to be hoped that these individuals will soon take up the matter again along the lines of the closing paragraph of F.C.C.'s presentation of the result in June issue of "A.R."

The contents of that letter are too lengthy to be repeated here, but suffice to say that for every change recommended, every justification possible has been given from our point of view as we feel it affects all States.

Let us not be unduly critical of the F.C.C.'s job; it is a difficult one, particularly one which is felt widely that changes are necessary, then let each of the V.H.F. Groups do the right thing and prepare in detail every change that members consider warranted and give all possible justification. After all, it cannot be ex-

pected that all the members of the Contest Committee would have the specialised knowledge and experience of V.H.F. Contests which makes them fit for the chair.

Six detailed proposals must produce reasonably unanimous agreement, or at least provide a very definite basis on which to analyse requirements.

I have no doubt that F.C.C. would be only too willing to review arrangements presented in this fashion—or should they require it—have no difficulty in finding representatives in each State who could quickly, together, even by correspondence, produce the alterations most generally acceptable.

We have little enough time left now—when we consider the amount of work involved in altering rules and in publishing them—so let each of the Groups prepare concrete proposals rather than, with due regard to the excellence of the others concerned, stab vaguely in the air.

—D. B. Hughes, VK4HZ.

DECIDE COUNTERS

Editor "A.R." Dear Sir,

Re AFDR, who does the Magazine Committee think they are kidding? Presumably AFDR stands for April Fool's Day Rx. Et al., or maybe April Fool's Day Rx. Et al. May be with another 9 tucked on to the £4 department of the price, the story would look a little more convincing.

The idea of hooking a decade counter on to the oscillator section is technically interesting, but of course it's not new, and the practical solution briables with problems. Counters are available commercially which count up to 10 mega, but at a price. Marconi have one for £275 sterling, if you're interested. In this application the counter is only half the story. The h.f. oscillator would require to have superlative stability and the b.f.o. also requires to be of high stability. In addition problems of accurately centring the signal in the two positions of the transmitter. Double conversion above 10 Mc. would be necessary and this would complicate the counting procedure.

The writer has started preliminary work on a decade counter MM100 which will be fed from a static locked converter with switched resistors for hands a la 5B4. It is proposed to use transistored decades up to 10 kc and the last three decades will use valves. I would be interested to hear from anyone else who is working along these lines.

—L. P. Berwick, VK3ALZ.

BRIGHT STAR CRYSTALS

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THE FOLLOWING FISHING-BOAT FREQUENCIES ARE AVAILABLE IN FT243 HOLDERS:

6280, 4095, 4535, 2760, 2524 Kc.

5.500 Kc. T.V. Sweep Generator Crystals, £2/12/6.

100 Kc. and 1000 Kc. Frequency Standard,

£8/10/0 plus 12½% Sales Tax.

Immediate delivery on all above types.

AUDIO AND ULTRASONIC CRYSTALS—Prices on application.

455 Kc. Filter Crystals, vacuum mounted, £6/10/0 each plus 12½% Sales Tax.

ALSO AMATEUR TYPE CRYSTALS—3.5 AND 7 Mc. BAND.

Commercial—0.02% £3/12/6, 0.01% £3/15/6, plus 12½% Sales Tax.

Amateur—from £3 each plus 12½% Sales Tax.

Regrids £1/10/-.

CRYSTALS FOR TAXI AND BUSH FIRE SETS ALSO AVAILABLE.

We would be happy to advise and quote you.

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OBITUARY

CHARLES WELCH WALKER, VK4CU
14, with deep regret, the news reaches us regarding Charles Welch Walker, VK4CU, of Clifton, Qld., on 13th May, at the age of 62. Chas. also held the portable call sign of VK4QD.

Chas. was held in great respect and high esteem by his friends. He was brought up in the Commonwealth and New Zealand, who had contacted him over the years on 80, 49 and 6 metres. He was a great exponent of v.h.f. and was well known for his portable work, having gained first place in the National Field Day.

He was a member of the Old Timers Club "A.R.R.L." and was indeed an Old Timer, as his A.O.C.P. was No. 10 and was issued on 24/1/21. He was associated in the very early days, transmission on the broadcast band, with VK3KRR, who is still active.

The great respect in which he was held by the people he so faithfully served in the town of Clifton was evident in the estimate of 850 people who attended his funeral. He will indeed be sadly missed on the bands.

He is survived by his widow and three daughters.

KIRTH HAWKES, VK4HP

Kirth Hawkes, VK4HP, of 13 Railway Parade, Wynnum, who was born in Victoria on 14th March, 1894, was laid to rest in Hamman Cemetery on Tuesday, 29th May, 1961. He became seriously ill last February.

Kirth, who had been employed in the Telegraph Branch of the P.M.G., was known as a good worker and was a man of great skill in his section, being a worker for the "Sparks Club" of that section, and on hearing of his illness, his workmates presented him with a new 23 inch t.v. set.

To his sorrowing mother and two brothers go the deepest sympathy of the W.I.A.

TED DODDY, VK6WH

HARRY TARBOTTON, VK5HT

It is with regret that we record the passing of Ted Doddy, VK6WH, and Harry Tarbotton.

Ted, particularly in the days following the First World War, was a great pillar of the VK5 Division. He held several offices in which he did yeoman service in the cause of Amateur Radio. He was President of the Radio Society which was originally formed in 1920, and was a member of the young men's club where amateur radio existed. Ted was a great organiser and helper.

Harry Tarbotton spent most of his Radio days at Albany and was for many years an able and willing helper in the administration. A couple of years ago Harry gave Amateur Radio a rest, taking on a motor boat in his spare time.

VK5 over much to both Ted and Harry and their passing within a week of each other were sad days for Amateurs in the West.

Our condolences are extended to Mrs. Doddy and her grown-up family, and to the relatives of Harry Tarbotton.



"Did you say you were being troubled with oscillations—or osculations?"

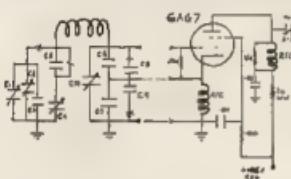
SIDEBAND

Bud Pounsett, VK2AQJ
6 Alice Street,
Queanbeyan, N.S.W.

MIXER AND CONTROL CIRCUITS

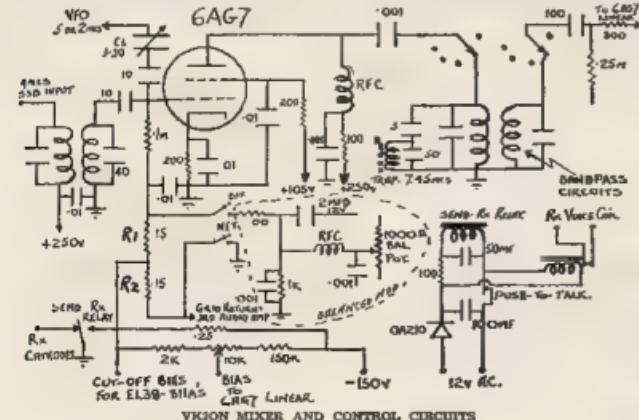
AT V2000 :Second Part of Series;
 This latest evolution of the mixer stage uses a 5AG7 vacuum tube. The first edition used a 6L8 but an infinite impedance mixer but the output was rather poor. The present circuit gives 13v. output for about 1W of 9-meg. input. The output was measured by noting the start of grid current at the first linear stage which has variable grid bias 3-13 volts from a separate bias source. 1000V acoustical rectifier

Doubly-tuned circuits are used where convenient to reduce spurious frequencies. Injection from the v.t.o. (SAGH) is controlled by the 30 pf. concentrator C_1 . The correct setting about 3 pf.¹ is such that there is no change in grid current when the v.t.o. is turned on. In this case, 7.15 meg. operation the spurious 7.4 meg. 4th harmonic signal increases markedly if grid current flows and conversion conductance is near optimum with 1.5 pf. excitation just less than bias voltage (B_v). It would be better to switch in two concentrator variables, one for 8 meg. operation and one for 2 meg.

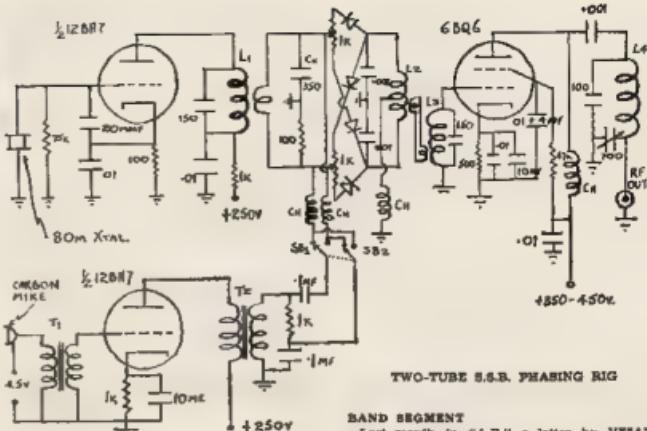


THE V.F.O. AT VISION

The band-pass circuits are switched, one for each band. Bias-tuned plastic unshielded formvar $\frac{1}{2}$ wave \times $\frac{1}{4}$ inch do a good job here. Fixed condensers of 120, 75, 35 pF. are used for 80, 40 and 20 mhz bands. Sliding coupling with close spacing is good, together across the frequency range 3.8-3.5 mega. Across the 16 inch plate adjust is an absorption circuit tuned to 7.45 mega. Using v.f.o. on 1.88 mega. Using carrier injection and thin trap circuit, reference signal is taken from the 1.88 mega. Subsequent linear tuned circuits are three and each has a trimmer or tuning condenser to be peaked up.



VISION MIXER AND CONTROL CIRCUITS



TWO-TUBE S.S.B. PHASING BIG

BAND SEGMENTS

Last month in "A.R." a letter by VESAY appeared concerning the 14,100 to 14,160 kc segment of 30 m. I for one, and many supporters, thoroughly endorse his suggestion. By the very marked lack of DX in the 14,100-14,160 kc band, it would seem that the WTB QRK ham has lost too much of his power outside of the U.S.A. If we ALL use the lower 40 kc., the position will quickly become workable and it will not be very long before we will be enjoying contact with the U.S. under similar conditions as are prevalent now. "Short" wave top 50 kc. I must say I was amazed to hear a W8 asking another W8 "Why does the DX want to migrate to the lower end?"

TWO-TUBE S.S.B. PHASING RIG

Or Get Your Friends' Feet Wet With ? Waller
Leo Boisvert, WIHE, has come up with the end-all of simplest sideband transmitter; this man, is the least! We have the S.S.B. A.R.A.'s journal "The Sidebender" (Feb. '61) to thank for this information.

This little rig is clean cut and wrung out to the very minimum of parts that will put out a clean s.s.b. signal. First off, the r.f. signal is fixed phased and so is the audio, but due to the fact that we are using a carbon mike with its limited audio band pass, it really works out fine for fixed phasing.

Measurements were made in actual opera-

tion and we came up with these figures:

This may not be commercial s.s.b., but it sure beats the pants off d.s.b.!
Construction of this unit requires no special parts and at that, the percentages are real loose. It is only necessary that the tuned circuits resonate at the desired frequency and that the auto coupling transformer have a 500 ohm output to the diode modulator. For this purpose I have used an ARCE 1000 output transformer.

It is important that as little as possible of the xtal oscillator voltage get into the fields of the coils L3-3-4. Keep the osc. coil L1 as

(Continued on Page 15)

PARTS LIST

- L3—35 turns No 30 wire Link, 12 turns No. 30 on cold end.
 L3—16 turns No. 28 wire. Link, 6 turns No. 30 on cold end.
 L3—35 turns No. 30 wire Link, 6 turns No. 30 on cold end.
 L4—30 turns No. 30 wire on $\frac{1}{4}$ inch coil form.
 Coils L1, L2 and L3 are wound on $\frac{1}{4}$ inch coil forms, slug tuned.
 All capacitors marked "M" are mica; all others can be ceramic.
 CX—35 p.f. for 78 metres. One half capacity doubles frequency.
 T1—Carbon mike to grid transformer.
 T2—Plate modulator.
 D1—Any p-i-n diode (not critical).
 D1—1N404 or most any diodes providing they are matched.
 R1—R3—1,000 ohms, carbon pots.

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PREDICTION CHART, JULY '61

Mo.	E. AUSTRALIA — W. EUROPE S.R.	Mo.
0	3 4 6 8 10 12 14 16 18 20 22 24	45
1	-----	45
2	-----	28
3	-----	21
4	-----	14
5	-----	15
6	-----	7

E. AUSTRALIA — W. EUROPE L.R.

0	3 4 6 8 10 12 14 15 18 20 22 24	45
1	-----	28
2	-----	21
3	-----	14
4	-----	7

E. AUSTRALIA — MEDITERRANEAN

0	3 4 6 8 10 12 14 16 18 20 22 24	45
1	-----	28
2	-----	21
3	-----	14
4	-----	7

E. AUSTRALIA — N.W. U.S.A.

0	3 4 6 8 10 12 14 16 18 20 22 24	45
1	-----	28
2	-----	21
3	-----	14
4	-----	7

E. AUSTRALIA — N.E. U.S.A. S.R.

0	3 4 6 8 10 12 14 16 18 20 22 24	45
1	-----	28
2	-----	21
3	-----	14
4	-----	7

E. AUSTRALIA — N.E. U.S.A. L.R.

0	3 4 6 8 10 12 14 16 18 20 22 24	45
1	-----	28
2	-----	21
3	-----	14
4	-----	7

E. AUSTRALIA — CENTRAL AMERICA

0	3 4 6 8 10 12 14 16 18 20 22 24	45
1	-----	28
2	-----	21
3	-----	14
4	-----	7

E. AUSTRALIA — S. AFRICA

0	3 4 6 8 10 12 14 16 18 20 22 24	45
1	-----	28
2	-----	21
3	-----	14
4	-----	7

E. AUSTRALIA — FAR EAST

0	3 4 6 8 10 12 14 16 18 20 22 24	45
1	-----	28
2	-----	21
3	-----	14
4	-----	7

W. AUSTRALIA — W. EUROPE

0	3 4 6 8 10 12 14 16 18 20 22 24	45
1	-----	28
2	-----	21
3	-----	14
4	-----	7

W. AUSTRALIA — N.W. U.S.A.

0	3 4 6 8 10 12 14 16 18 20 22 24	45
1	-----	28
2	-----	21
3	-----	14
4	-----	7

W. AUSTRALIA — N.E. U.S.A.

0	3 4 6 8 10 12 14 16 18 20 22 24	45
1	-----	28
2	-----	21
3	-----	14
4	-----	7

W. AUSTRALIA — S. AFRICA

0	3 4 6 8 10 12 14 16 18 20 22 24	45
1	-----	28
2	-----	21
3	-----	14
4	-----	7

W. AUSTRALIA — FAR EAST

0	3 4 6 8 10 12 14 16 18 20 22 24	45
1	-----	28
2	-----	21
3	-----	14
4	-----	7

SWL

Maurice Cox, WIA-L3055
Flat 1, 31 Boyd Crescent,
Camber Vale, Heidelberg,
N.S.W., Victoria.

On Sunday, 11th May, 18 members of the VK3 Group visited the High Park Receiving Centre, 3 miles outside of Kilmore. We had a wonderful time. We even had a S.M.A. Super Pro, and a G.E.C. general-coverage rx. The antennas were rhombics, huge things, 70 ft. high, and a lone T type. The game and I will never forget the sight we saw and the knots we twisted.

We are sorry that all the VK s.w.l. couldn't see it. One's mouth drooled. High Park is the A.B.C.'s overseas monitoring centre. It's from where you hear the Test Cricket in England. Our thanks go to Bert VK3KED for his time and trouble in arranging all those wonderful receivers. A special thanks to Bert's XYL for putting on a lovely afternoon tea, and to the P.M.G. Dept.

It will not be long now until the two s.w.l. Awards will be given. I heard last week that they are before Federal Council.

On Friday night, 2nd June, 11 of the boys went to Radio Lyndhurst, the A.R.C. Regional short wave stations. Once again they were very friendly and informative. A super supper again. I thank the F.M.G. and their officers. The VK3 Group thank Ian Woodward for the sterling job of arranging these visits; you Ian are very much appreciated by the Group.

I will have shortly for sale, Russian Call Books, f.b., for you keen s.w.l.'ers. Price is 15/- and 30 will be available. First come, first serve.

The VK gang wishes to congratulate Charles Thorpe for winning the Listener's Section of the Ross Muir Memorial Contest. Charles Abernethy took the VK3 award—congrats. Chas. and yours truly, the VK3s. Mac Hilliard is continuing on the air with his Sunday morning broadcasts. Keep it up. Also his new 10 transistor communication receiver (portable) is giving him very good results.

CORRESPONDENCE

Thank you for the following for your letters: Barry Thompson, ZL358, DXFTA, Doug Allen, New S.ect. of VK3 Group (congrats), Doug, Chas. Abernethy, Dave Jenkins, Mac Hilliard, Craig Cook, Ashton Westcott, Peter Field, Peter Drew, Geoff Sharp, and New Fisher. Thank you fellow SWLs. Barry Thompson is in the ZL land who came to stay at our Convention; well he's back home in ZL land and he's very happy to be home working. He says his country scores are slipping rather fast. His radio gear is all stripped and cleaned, last four being UL3A, UO8MC, SU9MC, and MP-4TAC. What bad eh? Barry tells me to look for HBSTL on 7th June; he is going to a country between Kuwait and Saudi Arabia and will open up to us using the call ZK3B. Barry sends his regards to the VK gang and especially ZG3D and wonders if he is still going to ZL land for his holidays.

Doug Allen L3215 writes his first letter to me as the new S.ect. of VK3 Group. Hope all goes well with you. The VK3 Group has a mighty fine set-up at his QTH and the following is the line-up. Main rx ART with almod. mod. plus a QDR 1M strip inserted between 4th & 1st. 450 kc. and the SOSI detector. The QDR is home made and adds about 50 db to 3rd i.f. into ART det. and diode load. Original 4th rx b.f.o. feed into input of QDR and a.v.c. The a.v.c. is wired to the transmitter of the ART include replacement 1M. 507 with KT39/VR33. No alteration save earthing pin 1 is required, gain 600 gm. higher, added one only 100 kc. xtal calibrator, ex two in-line T's. Results are good, no power supply, ART with double conversion, no xtal calibrator. Doug also has a BC455 1 Mc. rx with a Hallicrafters S33 and a SCRM52. A mobile rig is a Pyle TRPI transceiver using a type 504 generator supply and a 2000 series linear amp. At the top of the Blue Mountains, the antennae are a 7 Mc. half wave dipole, half wave 7 Mc. long wire, both up 35 ft. at angle of 80 degrees to each other, and they feed into a switch panel. Well that's mighty nice. Doug can supply quite a few of the boys will be interested to read that.

Chas. Abernethy: he's a nice guy. Tells me he's sent out 200 reports and cards in the past 12 months ending 30/4/61, and that comes after his first 12 months as s.w.l. In that time he has received 16 countries confirmed, plus 26 cards received; he was fourth in the R.D. Contest last year listeners' section, and first in the State award in the Royal Mail Contest this year, and he's happy with that. Keep up the good work, by the way, he has a very nice helpful daughter, Jean, she helped him put up his antenna and she's got brains, too, has just read half a page all about her. Looks after the house.

Dave Jenkins, of Orbost. I want all his scores for the DX ladder, but I have to wait as he's busy building a transistored converter which is well under way with 16 coils wound and all the parts sorted. It will be plain coils which he prefers. It will be plain coils with expensive xtal's, such as for 15.7, 7, 16, 21 and 28 Mc. It feeds into a b.e. rx, but later will build a transistored h.e. rx. It will have a 1000 ohm zener diode in the oscillator into a transistor regenerator 455 kc. lf. The latter will be as good as the highest two lf stages and a b.f.o. will give a single signal selectivity effect for c.w. reception. A germanium diode will be used for the det. and mixer will feed into the transistor wide tuner. Also on the chassis there will be room for a 2nd lf stage and b.f.o. coil in case the regen. lf. is not so good.

Geoff uses a three dipole antenna for 14, 21 and 28 Mc. The dipole for 14 m. is dislocated with the same 72 ohm feeders (should use coax, but uses ribbon). He has one pole up, the centre of the three dipoles is at the top, and the ends come down semi-vertical. Each end is 10 ft. above ground level. It is necessary, Dave says, to say that there must have a fair angle between each antenna and to have them fairly tight to avoid shorting, unless insulated wire is used. There is no reason why two more dipoles should not be used in addition to the 14 for 80 m. and one for 40 m. He gets good results with his on 40 m. and by using one side of it, it works f.b. on 80 m.

A letter to hand from our worthy President of the VK3 Group, Mac Hilliard. He writes that after seeing Bill's (LARZ) set-up one night, Mac has decided to re-organise his shack. The first project will be to get well organised on 2 and 4 m. as he's looking around for a 4 m. converter rx and will fit his new 1 m. mixer converter into it and he hopes 6 m. max. Then he's going to try rotating his beam from the shack (out of the window, Mac, and use your paws). Mac heard Bill's converter 4 m. and was present when he resolved how poor his is, so Mac is going to try to organise himself on the v.h.f. bands. I wish you success.

Craig Cook, with Kevin JARD, on 31/5/61 at the Oakleigh Technical School (during their Education Day) worked on the hobbies display. Craig put in Mac and one of his display's ARTs, a three valve regen. and a pair of 2 m. converter ART's went on the air at 3 p.m. and 7.30 p.m. for the boys' benefit. Kevin worked KJ3JSO and KJ3XP in the pm. Most of the trouble was QRMM from electric trains and amateur radio stations. Mac and Kevin did what Kevin mentioned the schools' display to them. Craig says thanks very much Kevin for your effort. A 15 m. rx was put up in use shortly. Craig is a building student.

Afton Westcott, of VK4, found little or no activity on 14 Mc. during work days now. From last August, Afton has sent out 220 cards and he is very satisfied with the results. At the time of writing (26/5/61) he has 48 countries confirmed, 12 zones, and 25 zones confirmed. Truly good work Afton. You sure went past a few in the DX Ladder.

Peter Field, of Elizabeth, A.S., has logged a hefty fat full of stations of late. During his school holidays he passed through VK3 to VK1 to visit some local Amateurs there. He has just got a 1000 kc. converter gone on air, he's logging 20 stations in the weeks. Peter is another s.w.l. that was knighted by the Ws.

On the 5/5/61, the night the Ws put up the space capsule, Peter listened for two hours to KOMEX on 14 Mc. s.a.b. re-broadcasting the space flight.

Peter Drew, L5021, of Weddlands, W.A. He is very interested in the forthcoming contest and says it's about time as it's too far between N.D. and Australia. Peter has sent me a list of eight Elizabeth stations received by him to SFY, and hopes to obtain the Elizabeth award. Says 20 m. is bad at his QTH, but best times of listening are 0900 to 0930 G.M.T., and 1100 to 1130 G.M.T. and the best times to open up are about 1000 to 1100 G.M.T. He heard an SMO on 80 m., but low and behold, was WMO 200 miles south of VK3, running 650 watts!

From the Apple Isle, down south, comes a letter from Geoff Sharp. He's been active a.s.w.l. for 12 months and hopes to be both Aus-

teur and s.w. b.c.; he's heard 40 countries with b.c. with 32 confirmed on the Amateur bands, has heard 13 countries with 6 verified with b.c. Geoff uses a 10.9 act. 2-8 Mc. of six tubes and a five valve d.w. set, also a 2-8 mc. converter and pre-amp. He's rather isolated, being 300 miles from Hobart, and has nobody to talk to and no one to swap equipment with. The other day he was down in his shack at 5 a.m. on the 40 m. band—Pakistan, Monaco and Bulgaria. He then asks me about report forms, Geoff says he's got many suitable forms. Also a circuit for a converter suitable for a No. 19 act. 2-8 Mc., as he is not happy with his present converter. Can anybody help him there? If so, his address is Geoff Sharp, 30 Josephine St., West, Riverton, Tasmania.

Now the New Zealand Outlaws, he's 18 years of age and works in the docks. In Hobart, Nav sent me some beautiful coloured photographs of his shack and rx; they were beauties. He has a 7 Mc. ground plane antenna. The radiator (18 ft.) is being mounted on a 10 ft. post with a 10 ft. wire to the radiator 20 ft. off the ground. Other projects include a squech circuit for the rx, an antenna coupler, 388 Mc. rx, and a frequency meter, plus a 3 1/2 Mc. beam; he's not sure he is, just kidding us hi.

They have 12 new members in the Group, though most of them are not yet fully entangled and getting them gear sic. A c.w. class has been started in the Group with TGV as the instructor (that's what the VK3 Group is going to do too) and a tape recording by Mike (LARZ) which is the tape tape. Classes and visits are on the agenda for the next couple of meetings. Nav sent me a photo of your rx and ant. for showing on this page. I am sure all the boys will be interested. Next month, tell me what gear the VK3 boys are receiving.

F.O. Len Cook, of Darwin, is interested in being the first s.w.l. in the N.T., so very shortly he will become a member of the S.W.L. Group under Geoff Sharp. His equipment will consist of a Quad II, 4 m. tuner through to a SES control unit plus a power amp. He got the bug off Chuck STEB.

DX HEAD

To Peter Drew, L5031, phone ODSBU, FEDZ, VHF, FM, PFMX, 4570G, 4570P, 4570K, OK-1B, VUAVC, ZEJR, PEFAA, VPEP, SAHR, SPRT, OETCH, FBRC, ZEJR, YVPPV, FSBU, KHDKS, OEUE, KW3KA, EAJME, 4570P, 4570K, 4570G, 4570F, 4570S, 4570R, FBRC, BVI, ZEJR, 4570P, 4570K, 4570S, 4570R, ZM3, VU4, and 114. After Westcott (VK4) 4 m. phone 457EC, GINNT, HMKLX, HMIAA, OD-SAY, PK3KT, SMSDLA, VOPRK, VK0ZF, NRR, KSTR, WBNBH, XEIEC, ZS2SL, FXT, KHM, 4570P.

To M.—After Westcott, phone CTIV, EP-3H5, ETMVB, GIARY, LIPOA, SKAY, OKNKK, UAGLO, VASDN, ZEJR, ZSLDC, MP-88DC, VP-PAB, USPD, PK3KT.

To M.—After again: WTAZY, ZS1KW, ZS-AKX, ZEJR

To M.—After again: JA1EDO, SATQ, 2AWG and SEL

DX LADDER

Con-	Zon-		
Nom.	Nom.	Conf.	Conf.
L3043	Eric Trebilock	277	40
L3074	M. Hilliard	87	24
VK4	A. Westcott	87	24
L3054	M. Cox	31	198
L3075	T. Heywood	18	29
L3081	C. Hornebeck	16	51
L3201	P. Drew	16	24
L5039	P. Field	8	118
L3057	R. Wood	2	3
L3156	R. Thompson	2	73
L3058	J. Walker	2	18
L3063	T. Mills	2	14
L3214	J. Walker	1	8

Well, the ladder has grown again in size. The important column is the countries confirmed. Those who have no countries confirmed will not appear in the ladder.

On the drawing—if there are no alterations to any of the drawings, each three months they will be omitted until I am advised. Sorry, that's the way it is, remember we only have one page.

Also I would like to say that I write more than you see in print, but it is omitted because of space. So I repeat, no alterations in ladder, then you are out. T.S. good DX, Maurice Liles

V H F

David Tanner, VK3AAU
17 Wolseley Street,
Mont Albert, Vic.

This month, as you can see, the notes are arranged a little differently from usual. Any comments, good, bad or otherwise will be appreciated.

5m metres has once again lapsed into the usual winter quiet, although one or two openings have been reported. On March 4 ZECI and 2ZDM had a VHF contact with VK3AAU and 2ZDZ in concert with ZEAI, TZAO and heard by others. Apparently there was very little activity at the time. On May 14, a VK5 full call was heard in Hobart at about midday but no contact made. VHF activity in all Hobart seems to be very limited, perhaps because in VK8 Roy SRY, reports that HILKA and the Russian tv below the band have been active at times but no JA openings yet.

VVKVVK at Wilkes in the cold south has an automatic keyer to run a 100W rig beam on the U.S.A. Unfortunately the frequency is not given but we hope to have more details soon. K2QMG may be able to supply some information.

Two metres seems to be the band at the moment with quite a few stations reporting contacts of further than just over the back fence.

Hugo ZWH worked Graham ZJXY and Paul ZPZ portable at the Gibs near Bowral, a distance of about 155 miles on Sunday, May 21. ZPZ says that others should be able to find plenty of contacts in the south west of NSW. He is still running his nighty sheds between Belgrave and SAW in Penola. Ron was heard complaining recently about the consistency of night sky noise in the area, but the only time they don't make a contact is when one of them is not on. Ron has quite a large number of stations both in VK5 and VK3 within about 150 miles to the west and has apparently worked most of them recently.

Garry GZFP is looking for VK3 contacts each night at 2000 hours. Garry has passed the word on the use of a wye might help to find the rare ones. The week-end sheds between SBD and SWG have been going on with quite good results. On Monday, 26th May, JNY was heard in Melbourne on a good street and quite a few stations throughout the country, to the delight of several local caversoppers.

The boys in VK7 seem to be well on the way to proving the old story, that any stations within a hundred miles or so can make contact as long as sheds are kept and the gear is good enough. On May 12, 7ZL was heard on 144.4, 2ZPF and carriers being heard by VLZ and TPF. They have been heard by ZEAI, TZAK and TZAO. The shed time is Sunday, 2000 to 2300 hrs. and the Hobart gang are inviting participation by any of the VK5 boys who may be around.

George ZGM at Unigore has quite a few active 2m stations around him in the Forbes to Tumut area. He has a 4X150G final under way and would like to hear from people to arrange sheds. Monday night at 2000 hrs. is a popular time in the area but calls on the bands half hour almost every night could produce results. 2ZBP should be producing a better signal in the not too distant future as he has stacked long yagis on the drawing board. Eric ZECR in Griffith has a long yagi up which may be making a remarkable improvement to his 15W on 2 m.

VK5 activity on 2 m seems to be concentrated near the VK4 border with the following stations reported by ZJER, Red ZCZ at Mundaring, 2ZCM, 2ZDF, 2ZDM and 2ZDZ at 144.4, running 30W to a 15 ft. yagi; also Hill 3ARM at Serviceton North on 144.4 and 3SV on 144.3 at Castlemaine 3NN at Yanac, 3ZLJ and 3PO at Maldon and SJW at Bendigo are also active. Quite a few of these have been heard by Melbourne.

Viv SZCC and Noel ZAS are building gear for 2 m and Neil SAW is believed to be organising vfo's possibly for mobile or portable use.

ZJW at Bendigo on 144.4 is on every evening at 7 p.m. working ZCZ and other Melbourne

stations, once again showing that a hill up the way, this time Mt. Macedon, is no barrier to signals. Other new ones in the city include 2ZDU, SAON, 3ZLT on 144.45, 3ZLW 2AEV and 3ARZ, mostly running 50W tx's. 3ZLG on 144.6 at Belmont near Geelong also heard.

New v.h.f. stations in VK5 are 5ZCH in Kimba, 2ZDX, both on 6 m. 5ZPG has been experimenting with d.a.b. on 6 m, but seems to have abandoned some. Maybe he's hopping off one sideband. 5ZDV at Elizabeth is quite active, also on 6 m.

Sixty metres in the VK5 area is 5ZCH in Kimba, 2ZDX, 2ZDM, 2ZDZ, 2ZCZ and 2ZBL are also active on 288, the latter with a m.o.p.a. Stabilized gear is also being used very successfully on 288 in VK6 and the mod. osc. and upper regen. have faded away.

Some of the VK5 stations are also operating on 376 mtrs. and 1286 looks like finding a few takers too. Maybe some DX via the moon is being contemplated.

New stations on 1 m in the deep south are 2ZAK, 2ZAL and 2ZAX with more to come.

A number of communicators are being constructed by the Hobart gang and they hope

to be able to interest some newcomers in v.h.f. through these units. VLZ is still chasing his

1000 VK3 QSLs, but still has a way to go. Col

and Peter are very interested in the southern

and spurred them on to greater things.

Fox hunts and scrambles are still quite popular, the former being quite a good way of introducing the YL or XYL to the lighter side of the hobby.

Intendents participating in the contests

will be invited to the experiences of John ZAAJ

who has been neatly caught (by a YL). Congratulations!

Additional rules for VK5 scrambles to com-

mence in June are as follows: Six mxi:

points for city-to-city contacts and three points for

city-country stations. Separate scores to be

kept by city and country stations. The control

stations for the first period will be SARZ on

144.3 and 3ZGP on 50.80. Neither control sta-

tion will participate in the scoring.

kept with SALZ a couple of summers ago be-

tween Melbourne and Maffra which is also a rather obstructed path slightly over 100 miles.

Stabilized gear is in use at 5ZDZ and we note that VK6 has seen the light and is now

using horizontal polarization. 5ZFG and 2ZBL are

also active on 288, the latter with a m.o.p.a.

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tion will participate in the scoring.

COMING EVENTS

VK3 Group July meeting on Friday 7th will be a forum on v.h.f. mobiles with Jim PDR as chairman. August meeting on Friday 4th with guest speaker by Harry ZAN on construction of 878 and 1286 meg. gear and an demonstration of night fox hunting on July 19 and August 16. The mid-winter contest will be held on the weekend of July 8-9 from 1900 hrs. Saturday to 1200 hrs. Sunday. All v.h.f. mobile cross band communication permitted, stations may work each other every three hours, one point per contact. Logs to VK2ZAM and VK2ZDP. The South-West Convention is not so far off for a little mobile gear should be in the contesting equipment for that month.

New VK5 meeting on July 19. Field day rules will be finalized and the agenda item will be "Mobile Equipment". See you there VK5 show more transmissions are now originating from SARZ on 144.5 each Sunday night from 2000 hrs. to 2300 hrs. WPM. A 1200 ft. stone tape machine is used to ensure good sending and m.c.w. is used to enable the people with simple receivers to copy it.

The next meeting of the VK5 V.H.F. Group will be held on July 19 and a good attendance is looked forward to.

That's all for the revised notes this month, new scribes please note the new address and my closing date of Friday before the 8th of the month. Thanks to ZDP, ZGMI, SARZ, ZER, 4BZ, 3BQ, SAW, 3ZL, SLD and TZAO for all the information.—SAU



QUARTERLY EXAMINATIONS FOR W.O.C.P.

The Radio Branch, Melbourne, advise that, due to the increase in the number of candidates for quarterly examinations for wireless operators, a re-arrangement of the examination dates will be necessary to re-arrange the dates for such examinations. In order to distribute more evenly over the full year, work relating to the marking of papers, the notification of results to candidates and the issue of certificates will be distributed among the following stations:

Examinations: First Commercial, Second Commercial, and Broadcast. Date to be held: The First Tuesday of March, June, September, and December. Closing Date for Applications: The eighth day of the month preceding the month in which the examination is to be held.

Examination: Amateur and Advanced Limited. Date to be held: The third Sunday of January, April, July and October.

Closing Date for Applications: The twenty-second day of the month preceding the month in which the examination is to be held.



Lance VK4ZAZ, another Rockhampton v.h.f. operator, who uses 120 watts input on 50 Mc and a four element yagi.

1961 EDITION

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NOTES

FEDERAL RADIO FREQUENCY ALLOCATION REVIEW COMMITTEE

Federal Executive of the W.L.A. is aware of reference to the changes in amateur frequencies published in an overseas magazine. Pending announcement by the Post Master General of the recommendations of the Committee, it would be in the interests of the Amateur Service to refrain from making speculative announcements of this nature.

"PROJECT NEEDLES" PLANNED FOR THIS YEAR

"Project Needles," the U.S. proposal to put into orbit a belt of dipoles as passive refiners, is scheduled to be implemented this year. This was announced at the Second International Space Symposium in Washington, organized by the Committee of Space Research of the International Council of Scientific Unions (C.O.S.P.E.R.).

The intended orbit is to be polar and the dipoles ("needles") are to be of copper. The height of the orbit above the earth's surface will be 1,000 miles and the belt will probably remain near its original orbit for about a year. After that it will cease to be a useful reflector.

AWARD FOR G.B.

The Mullard Award for 1960 has been made jointly to End Böttomley, G3ONB, and Graham Thomas, G3GOT. The Award Committee consider that the fortitude and courage shown by Miss Böttomley and Mr. Thomas provides a fine example of personal service to the community."

They are both patients at St. Teresa's Home in Cornwall, one of the Cheshire Foundation Homes.

ARMY SIGNALMEN MAKE RECORD MARCH

Five Army Signallers recently undertook a march from Bathurst to Ingleburn (N.S.W.) a distance of 130 miles and took 61½ hours to complete the march, which was done under kit order. They broke the existing record by 4½ hours and were joined over the last 12 miles by Ken Scott, VK3XKS, who had cooperated with the signallers' unit, 904 A.S. for last year's monitoring test calls from a mobile Army transmitter.

Of the Army signallers' effort, Ken said, "Thank Heaven I was in the Air Force during the War and not in the Army". (At least the signallers could not be classed as P.B.I.)

FEDERAL QSL BUREAU

The Malayan Amateur Radio Transmitters' Society has submitted the following proposals to the L.A.U.R.:

1. Power input should be restricted to a maximum of 50 watts to the final amplifier on 10, 15 and 20 metre bands.
2. C.W. operation should have a separate segment at the lower end of the 10, 15 and 20 metre bands as follows: 10 m., 200 kc. 15 m., 150 kc. 20 m., 200 kc.
3. Traffic handling on the 10, 15 and 20 metre bands should be confined to c.w. except in cases of a National Emergency.

All QSL cards for the Island of Aruba, Netherlands Antilles, should be sent to the QSL Director, Aruba Amateur Radio Club. The A.A.R.C. will handle cards for all the Netherlands Antilles Islands, Surinam, Central America and the Caribbean. The American Bureau of Amateur Radio Club QSL Bureau, P.O. Box 43, Berco Colorado, Aruba, Netherlands Antilles.

VK3LX weekly phone checks on the 7 Mc. band from 0730-0830x daily. He carefully tunes 7070-7080 Mc. and 7140-7150 Mc. Divisional Managers please note that cards for VK3KGP, Norfolk Island, should be routed to VK3 where his father, VK3AOH, will attend to same.

Robt. Gurr, VK3KNO, is now attending to QSL affairs for VK3, since the departure of Russ VK3KXK.

The Taiwan American Radio Club takes great pleasure in announcing the issuance of B.V. Award Number One to Mr. R. A. Catmusr,

VK3FY. Mr. Catmusr's certificate, endorsed for c.w., was issued on 5th May, 1961. The W.I.A. Extra Class Radio Club, of which Mr. Catmusr is a member, take great pride in this accomplishment.

—Ray Jones, VK3RJ, Federal QSL Manager

NEW SOUTH WALES

THE MONTHLY MEETING

The attendances at the mid monthly meetings of the Division have improved greatly over the past few months, and an almost capacity house was present to hear the slides and hear the comments of Bill ZEG illustrating the activities of A.N.A.R.E. in Antarctica. Bill, it will be recalled, has made two excursions into these regions, one to Macquarie Island and another to Marion. He was able to give the audience the benefit of his wide experience. The slides were of excellent quality and with his comments all were able to appreciate the hazards of life in these regions and to realize that the fellows on these expeditions are doing an excellent job for Australia.

Further meetings are being arranged and are held on the second Friday of the month at Davidson's Flea Market, Altona St., Croydon Park and commence July 19th will be the playing of one of the many tapes in our rapidly extending library. Do not fail to be there at 8 p.m., an interesting and instructive evening is assured.

MONTHLY MEETING

Monthly meetings come and go over the years, and despite all our good intentions, some of the lectures heard recede into the background of our memory only to be recalled at some future date, possibly many years after. The lecture at the May meeting, however, was one which I doubt very much will be forgotten by the audience will never forget, and was one which all Amateurs enjoy. Lee ZAC presented a discourse on Phasing-Filter Sideband Generators in numerous ways which I am sure will be in mind that here is a sideband generator which appears to be easy to get going and which would be more stable than many of the phasing rigs in common use today. Accompanied by a simple roomed circuit, the information of the lecture was complete in every detail.

Following this fest, Keith 2BK gave a short talk on the new Barium-Titanate type of Filter which are now being developed here in Australia, and showed how they can be used. In fact had with him an example of the use of such filters.

The vote of thanks was moved to the lecturer of the evening by Wal ESA. Five new members were admitted to the Division at this meeting.

CLUBS

A new Club has been formed at the headquarters of the 5th A.A. Regiment at Haberfield and will undoubtedly appear on the air in the near future.

The recently formed Orange Radio Club announces the acquisition of their call sign, VK3OR, the transmitter being completed and operating.

All Clubs are invited to supply the Divisional Correspondent with information of their activities so that they may receive adequate publicity, which can only lead to increased membership. Remember the time lag in publication which is of course unavoidable, and have all information in to us by the first day of the month.

INTERESTING LECTURES

Do-it-yourself lectures. This is the latest news from the Hunter Branch. I don't know whose idea it was, but the eventual 12th May saw this most interesting put into practice. The Branch meeting listened to no less than five of our own members giving practical hints and ideas. These were Keith 2AKX, 75 rx modifications; Stan 2AVF, 100 watt transmitter, etc., for 2 m.; Stan 2AYA, a practical frequency meter; Les 2RJ, Departmental requirements for mobile operation, and Gordon Sutherland, wave shaping with one control.

SILENT KEY

It is with deep regret that we record the passing of:

VK4CU—C. W. Walker.

VK4HP—K. Hawkes

VK4HT—H. A. Tarbotton.

VK6WH E. A. Doddy.

The attentive audience included a welcome visitor, Bill 2CW and the following members of the Association: John Cowan and Maxine 2BZ, Forrest Mulren, Philayson, Stobbs, Gray, Munro and Foster. Those who could not be present were Varley ESF, Harry 2AFA, John 2XQ and Tom Davis. Max and John were members of the Division as well this I remember. One out of the above names now is entitled to use a call sign. I have pleasure in introducing our newest Amateur, John Gray, VK2JG. At long last John has got a call sign and stands by it, but he was going to let me have it all, but the powers came good in the end. I have no idea what gear John will be using, but Z calls please take a look for him soon.

You will notice that Varley could not be there on the last meeting night, but he did come to the rally, and is now back in England and has almost recovered from his recent illness. Please to know you are feeling better Varley. You'll never guess whose car failed to start the evening of 24th May at Bill's place. Well, it worked! It took through as Gordon 2AL had it. I wonder having had to go to a KLY on 5.5 m. with a fertilizer bin on that same evening. We are told that Mr. Mall inaugurated communication by breaking into a W QSO and having ten other Ws come back to him! How about that! He was late to bed that night.

Have you heard Charlie 2ARV on 7 Mc. s.w.? Harry says it is true and Jack, second op, at Ron's (EAS) has a card for him from an LAT mobile marathons. Keep up the good work Charlie. Ron too, is still putting out on 20 ss well. The C.W. contacts with California please Ron no end, so Jack says, and I'm sure we are all delighted to know the Stockton crew are still active and working.

Our hard-working but transmitterless President, Stuart, is building a transmitter box. Whether this will be used for Monday night broadcasts is not clear, but it is to be a variable modulator on 42. It is rumoured to have some of those QQ strokes something or other in the final, so here's hoping. I don't know what remedy can be prescribed for the re-broadcasts of the 20 m. band. I have heard the 20 m. QTH and Zulu Zulu's taking back modulator just seems able to put enough intelligence on the carrier to be understood in Newcastle City. Those poor Hams with 10 watts w.t.s. in the 20 m. band, can you imagine the National music when RAWX fades out. "There's not a chink in the band," said a local wag the other day. How about 1650 night-times?

The expectant associate, Gordon, must be sure of his exam, result and apparently intends to go for the novice grade soon because he is looking for certificates for conversion on the h.f. bands. Better speed it up Gordon, for when the sunspot number drops a bit further we'll be lucky to hear ENA outside.

Is it true that Bob from Westy has a barrage balloon ready for one end and a big hook on the top of Sugarloaf for the other end of an a.i.d. antenna? Won't it be grand on the 160 m. band? We've gotten QRM from the band end. At least that will fit in nicely with the duck decoys we'll need to receive the s.a.b. which Lionel hopes may soon emanate from D.D. Mk II.

ZZIF has found that accumulators have a short life index on 1000 watts. I suggest that he had bought another car just to keep the batteries charged. You'd better get some clues on transistors Ian or else get one of those pedal machines. One CG equals 463 pedal revolutions or thereabouts.

Chris 2PZ is looking well, longing at a car and maybe a boat. He and his girlfriend are it will go along the land and through his back gate. He is sure it would make an ideal companion for the present single iron structure. John 2XQ has been heard on 80 m. phone and the 160 m. one. I do hope that 50 keys are improving and that more of our local boys use this band.

VK3WV has been coming through more strongly each Sunday, and some of the better listening to the transmission is to be attributed to 7140. One 80 m. only man, Jack 2XQ, is heard now and then with a mighty strong signal at Jack also helps out with the slow mouse at times. At least one local associate has told me how much he appreciates the work done by

the more roster boys. You are doing a fine job chaps in providing an unparalleled service. Heard Lee RHL last Sunday calling in to speak with us about his new, shiny, 1000-watt rig. It is said that Lee has a massive generator to run this gear I suppose that's the one that was seen at Blackalls last year under the bonnet. Just as well Lee does not have a motor. On the way back from Brisbane Lee and Sylvia will be calling in on Tas 2GV in the furthest reaches of the Hunter Valley.

Amateur activity at SAYL's is at a low ebb recently as Stan is doing addition to the laundry and building the new porch. I expect really that Stan's new shack while the other family members are kept happy sitting in the sun.

Rodney 2CN has been heard but not seen and the EKZ still has at it confusing young students. Please a little more activity from Kates Hill.

A lucky Terence resident, Mac ZEMO, recently spent a week in the sister city of Wellington. Mac has some crystals and so far as this may mean more activity on 3 from the distant suburb with the two Z calls. You should get a good signal from 2ZJO, Mac!

A deal of r.t. has been floating about over the last few weeks with EKZ and EKX. The weather shades with the hamburgers from Booragal. It is a real treat to hear Harry on regularly again, especially on 7 mega. The local library has a pretty picture book from the U.S.A. showing various t.v. stations. Harry has also shown the book and reckons there's just no picture to describe what happens to t.v. at Taralba. Apparently the only way out of it is to be like the man next door who has a mighty small set. On winter days the top of EKZ goes out and the t.v. like the signal says Harry. A high pass filter was built but the folks have been unable to try it out because no picture could be found.

Billy ZAGM has been roaming around again and has been visiting the rest of the New North Coast gang, namely Ben ZABT, Lee ZLM and Bill ZAFY, the termite man. I believe he was looking for a reliable weight for his "B" meter need so that it would get off the scale. Phil ZAFM, Ben ZABT and Lee ZLM were all here. Bill was going to receive a visit from Lee ZAKX the other day and I bet he showed him the XL R/C bridge. This is a mighty machine chaps. It is transistorized but the only transformer which is used is in the power supply and the one outside on the pole and it won't quite fit in the box with the other components. Also out Toronto way the new beam at ZAKT has been lifted alit. A large crew was employed to do the rigging, but the cartels seem to have been too much and Jim's antenna farm just keeps growing. No wonder he works the DX! What a mighty signal.

The Booragal boys have at last begun regular transmissions from the school. The club is working well now, but only 100 per cent on c.w. The modulation is still not the best, but this will be cleared up if you give them the time, the boys would appreciate a shout and you can expect to hear them on 40 phone at 1500 and 1530 each day except Thursday. The signal is low power but the antennas are being helped along by the boys and the received to date have been most encouraging. Ian hopes to contact a W on 7 c.w. shortly if conditions hold up. As an activity for Technical Training the first four of the boys paid a visit to the station on 4th June. The lads at Dural were most hospitable and the boys were very impressed with what they saw. They are determined to clean up our own operating position so that we may change over with as much effect as possible the system in operation at the Divisional station.

One of the amusing incidents of the visit took place when one of the lads took a flashlight photo in the studio with a blue flashbulb. As if by magic, engineers appeared from all directions to see what had exploded. The boys were not too sure of what had happened, but they have got QSLs and promise to QSL all these chaps just as soon as the cards are printed.

If you are interested in wrecking disposals gear and lack the courage to pick up the sides rutters, bring your gear to the Annual Hamfest meeting of the Branch to be held on Friday week (that's the 14th) at the University of N.S.W., Tighes Hill. Vol 2VO has promised to give us the clues on this very subject and we are expecting a rapid turnover of junk in members' attacks following the meeting. So

bring a notebook and pencil and I'll see you there. If you'd like to see some super sideband or watch a thunderbird in action, come along. Who knows? You never know what will tell you where he lives. Come on Cook's Hill will welcome. Come along and let me have some news for this column. And if you're interested in meeting a tucky associate, see Belmont Bob. He's been over the local constabulary recently and I half expect him to be. All of these activities interests you, then use Amateur Radio to keep 40 and all the other bands busy. Let's convince the powers that we need it all. 73, MARK.

CENTRAL COAST SECTION

At the weekly hook-up on 3520 kc. at 8.30 p.m. on Monday night recently half of the stations were on sideband. The area now has five on this mode and five others are working toward that end. The latest conversion is Major ZRZ and his equipment is very good. His phasing type excitors have a very natural tone and the sideband suppression is excellent. Your scribe, ZON, has had excellent results with his 100 ft. vertical. Geoff Gantner described in Jan. '61 A.R. A 2 ft. length of 300 ohm ribbon is used for the matching section.

Congratulations to Reg ZAI on his brand new daughter. Geoff ZAI has his quad working on 14 mega and the results with 30 watts of a.m. are really good. Turning the handle on the 14 mega band and direct to the fire Ken ZAFH and Frank ZAFJ from Fresh Ridge are now directing their thoughts to 144 mega. At least they should escape t.v. t.i. living in the bush. Bob ZIN has a 10 on 144 now and apparently heard one 144 mega. ZAKH is active in many bands these days. He showed some very nice colourised pictures of New Zealand at a recent Gosford Radio Club meeting.

Steve ZTM rather likes the key for the slow morse sessions on 8.5 mega. Unfortunately at the weekly net an interpreter is required. This will be remedied when Trevor rebuilds the modulator. Harry ZXK is enjoying a trip to Japan with members of Rotary. Ernie ZEK is holidaying at Los Angeles for a few months and we hope to hear him from there before long.

Lee ZAMU has a keen second up and is undergoing gradual re-orientation towards a.s.b. and is gradually coming along. He puts so much care and effort to make them grow! On this point, Alec ZAAQ also agrees. Alec is very pleased with his tri-band beam and is puzzled why a DL station receives him at 9 x 9 and he why to report 4 x 6. Maybe they have enough rx'ers over in Europe.

BLUE MOUNTAINS SECTION

Due to annual leave there were no notes from yours truly last month covering the Branch meeting in April. On this occasion, Bob ZASB had his mobile beam and a hand band from 3.5 to 38 Mc., and including 1 macro. Bob also added some very helpful hints and kindly regarding his 2 man tx and outlined the general principles of a complete station. Eleven members attended and it was a good turn-out for such a little business to hand. Another Civil Defence Operation similar to Op. Picnic is coming off towards the end of the year, so shape, how about 11x2 macro?

The May meeting was very well attended, VFO 2AO, ZQH, ZAKX, ZEPF, ZARL, ZBL, ZMK, ZAVK, ZJG, ZEDM, ZAKA, Jack Morris, Ken Moore tix-ZAVKJ and Bill Smith Messrs Wallas and Baker from the volunteer Bush Fire Brigade spoke to members regarding communication. They outlined the various areas and radio requirements. One problem is when more members turn up at the base and require redirection to other fronts of the fire. Another is notifying changes in fire directions and also general emergency calls. The usual radio net followed and a good night was had by all.

Heard Alec ZEK making up for lost time with Bill ZXK on 40 the other day. The tx, according to Alec, appeared a bit cranky, was all right here. Al ZFZU now transmits and receives on 3 and getting ready for mobile. Bill ZXK is looking forward to working on 880—so turn your beams to St. Mary's fellowship.

The lecture for June meeting (as usual on the third Friday) will have been given by Harold ZAHM on Antennae by the time you read this. 73, ZADA.

VERIAT-BOYS' RADIO CLUB

Back on the air after the holidays and we hope to be more organised this term. Committee usually takes the lack of a chairman and Frank's mother's dinner-hour has extended till two o'clock! John saves time by listening and transmitting simultaneously until the OM gets within range.

Construction is almost completed now on a higher powered final (parallel 5tms) for c.w.;

next project must be to improve the antennae structures.

Nice to have a yarn with Booragal High School on 3.5. Last month our strongest signal so far has been ZALM/M who happened to be right in our street one afternoon. We've been listening for Harry ZLK, who is in Japan at present writing, but no sign of him yet.

VICTORIA

Not much this month. About the only things happening in the area have been some repairs to the buildings which have somewhat limited our activities; the great work being done by the V.H.F. Group, especially Bill ZAJZ, the last monthly meeting which was a great success. The 50 members present had an excellent lecture by the briefs of Arthur ZAJZ and Bert ZBV to Melbourne. Alan ZAKL our Federal Councillor, successfully losing his tomato.

Are there someone who is on the bands regularly (even a country member could do this) who could, each time he works a band, make jottings over the mouth and send them in as VK3 Div. notes? I am unfortunately occupied three nights a week with work this year, and find it a difficult task to get time.

There have been a few kind souls who write me with news, thanks! I am happy to

write up the news if it's sent to me at the end of each month, but as a news round, this year is dismal failure.

Anyways, I went to the monthly meeting last month and heard an excellent lecture on Linear amplifiers, Class C, Class A, Class B, Class AB, etc., grounded grid operation (which seems to be the best) and many other interesting facts on a.s.b. operation. Lee ZAI, who we thank very much for his efforts, said that the meeting was very worth while. This month we hope to have the University balloon team to show us their gear, explain their research and generally entertain us on this aspect of research. In which we recently took part. Be in it! It was a good roll-up last month, hope it is this month.

New members admitted were Ned Duncan, a junior; John Beckett, ZZCZ; Geoff WDC, a senior. Welcome to these new members. Max Hull, the Federal President, was at the meeting and was cordially welcomed by the VK3 Division.

The foundations were found, and work started on the new hall as we wait to press. The building will be finished by now.

Disposals Committee is running about gathering bits of gear for you—but it's hard to come by! Don't forget the forthcoming Convention and Dinner! Let's have some news. Hey, I almost forgot (shame!) next month is VK3. Contest time! Eight weeks from now—keep that week-end free to strike a blow for VK3!

EASTERN ZONE

During May, Graham ZQZ completed a trip through VK3, VK4, VK5, VK4, VK3 and kept regular contacts with ZABT, ZAKX, ZAKA, ZAKD, ZACB, ZADP, ZADT and ZAKZ. George ZCCG now resides at Mount Isa and is working on the big models; ZSDP and ZSAB mobile on 3 mc. 50 wox hook-up is still in being. Keep it up chaps. 50 mc hook-up is likewise. ZEAD and ZDZ are persevering with QSO26540 on 3 mc. but gradually getting the desired results. ZADT entertaining visitors and keeping them occupied with chores. Ron ZEAD is regular on the 30 mc morning hook-up, but t.v. keeps him off otherwise.—J.D.Y.

WESTERN ZONE

Alan ZHL is most active on the DX bands these days. He is still using a.m. but is very interested in a.s.b. and expects that in the near future he will have this type of signal. Alan and the ZHL one thing along those lines. Alan's a.s.b. is to be "real things" these days. Trevor ZATR also one of the DX boys and works the world with ease. Merv. ZAFD is active on the lower frequencies as well as spots of DXing and is one of the regulars on the 30 mc. band. Keith ZQG, of Merton, is now building gear for the 30 Mc. band. Keith's brother, Norm, is at present enjoying a spot of leave in Hope Island. Norm is a Missioner working in the Islands and will be staying with Broomeport Operator's ticket! in the near future. He is also very interested in Ham Radio and will also be doing Morse and Regulations, so we wish him all the best of luck. Expect to be contacting him from the Islands early in the New Year.—ZAKW

SOUTH WESTERN ZONE

The new co-ordinator for the Zone's W.I.C. EN. is Pat ZADN with Jim ZADT and Don ZAKN as his deputies. These three form a committee to plan training and operation of

the net and to make liaison with outside bodies. The control station will be rotated amongst the net stations so as each one will get practice in control work.

Don JAKIN has had a QSO with Bill 4ZFG and Peter 4ZG on 50 Mc, but is still awaiting the r.f. feedback in the tx. Don't worry. Don, it will come good in time. Brian 3XN is on 144 after getting bugs out of his converter. Here's a tip, check all bits and pieces, your receiver is giving trouble. Brian found the strife in faulty components in the converter.

John SARL's 3 mx tx is going on 144.8; the converter is coming up soon. Noticed in last month's notes the mighty 3 mx sig reported by Peter 4ZG. I have convinced me also about that band. I have been having trouble with tv lately, not t.v.l., just t.v. Looking will be back soon with t.v.l.-proofed new tx running a bit more watts I hope.—JANQ.

QUEENSLAND

Greetings chaps! I am looking forward to keeping this column of interest to everyone, but of course, I will need your assistance. What about letting me have news of that interesting event? Send direct or pass through Secretary 4WV. 4WK.

I guess you won't mind me repeating the Council set-up for 1961-63. President, J. Rafter, 4PR; Secretary, W. Wishart, 4WX; Treasurer, Grie, 4DG; Federal Councillor, A. Hinkley, 4AA; Inward, QSL J. Fife, 4PF; Outward, B. Franklin, 4ZB; Vice-Chairman, K. Long, 4VM; Div. Sub-Editor, P. H. Brown, 4PJ; Disposals Officers: E. Feil, 4EF; R. Guttermann, 4RL; C. Cogswell, 4SF; A. Walk, 4AW.

As you can see, most of the load has been taken off Jim, 4PR's shoulders. We held our first meeting on 4PR's shoulders on Friday 13th, when nine councillors were present. We started promptly at eight and we only stopped for breath, not even for supper, a little after eleven when was time to go home, and leave the winding-up to Jim. I can say the secret of Jim's success is simple and roundabout, secure if the bountiful supper his XYL provided is any clue. Thanks Mrs 4PR. However, we left a lot of business unfinished, so if some things seem to move slowly, chaps, it's time that we bring up the pace and not complain about it.

We held our monthly meetings at the State Service Union Rooms on Friday 26th, with over thirty present, including three new members, and a few that haven't been seen for a long time, including Bob 4KB who taught Bill 4WX Morse, who can I believe, took his course from Jim. Jim and others who were back on the air again Pat 4KB, who also was one of Bill 4WX's class instructors, was present, as also were our Ipswich stalwarts, without whom our meetings would be incomplete.

The business of the meeting was over and 4PR was due to give his lecture by 4.45 p.m. The time拖 with questions until just after ten and Vince had only dealt with the receding end of s.a.b. The "how" and "why" of a.s.b. reception and ways to improve present receivers were the main points covered. Vince, s.a.b. transmission, was there with covers off and knobs on for all to examine and admire.

Thanks Vince. We are looking forward to your next talk in July. I suspect the disappointed ones who missed this first talk will want it again one day.

In the column you read this the Queen's Birthday Convention at Narrabeen will have taken place and we will be looking for ways and means to further improve the next Convention.

Bill 4WX has the suggestion that we hold the next Convention in the North again, but at Easter, and so far the idea is being received favourably. It is not anticipated that the Urunga Convention attendance will be affected but that both shows can work together on "scrambles," etc.

FURTHER LECTURES

Now about our monthly meeting lectures and talks for the rest of the year. In July, Vince 4VY will continue on s.a.b. transmission. Probable talk to follow will be the Amateur Radio for 4KB. Mr. Morrison, 4MD, our overseas rep. Mr. Hinkley, 4AA, of the Queensland University, is lining up some talks suitable for our meetings and we have arranged for a practical demonstration, in which all, except the members of the audience, will be in re-ascension, using manikins. If you don't know what manikins are, I'll explain further next month. No, not mannequins!

Council will arrange these events so that everyone has a chance of notice. If you know anyone in a field that is related to radio or the Institute, tell a Council member that

we may co-opt him, and don't be backward if you are capable yourself.

While we are on meetings, etc. don't forget that Secretary Bill is opening the rooms at 7 p.m., so that you may have a chin-wag if you have some spare time before the meeting.

PERSONALITIES

Our new Secretary, Bill Wishart, 4WX, who calls himself an "old timer" but has a pretty youthful approach to the job, has his present position many years ago. Other "old timers" who have been associated with amateur radio above bring back memories of the past. Bill would be pleased to receive a letter from any of the old gang. His address is 80th Ninth Avenue, St. Lucia, Brisbane (phone 7-2784).

Keith 4DG was hard working CRTCIF on 15 mc and making sure his QSL was correctly received. You'll get some QSL cards. Keith Stan 4SA is back with us and we hope to see him at the July meeting. Doubtless we'll have a job to utilise his talents. Wide Bay and Burnett, also Central Division, were probably the best of the lot as they helped their formation. Even 4EF is to be congratulated on the efficient manner in which he is handling our disposal gear. Often the package is dispatched the day after receiving the letter confirming it. What do you think of the service, everybody?

Ken 4V4, our Librarian, reports that the R.S.G.H. Bulletin should be on its way and will let you know when it becomes available. We are missing a few 1958 "QSTs" and "CQs". What about looking around the shack and radio room for them? There are a few quaint issues Ken is going to award the crossed dipoles to Hal 4DD and Bob 4RW for promptness in returning library issues, but they are being run pretty close. Any more contenders for June and July?

Eric 4XR conducts the Wide Bay and Burnett Group's Saturday afternoon hook-up on 7125 Mc, at 1400 hrs. He conducts these hook-ups in an excellent manner and keeps to a tight schedule.

Most of the credit for the Convention will probably go to Eric, Barry, Jim and others of W.B. and B.

Have you heard "How I ride out the typhoon" or "Anchors Aweigh" by "Doc" 4MOY? Who are the persons using the 21 Mc Amateur band for private s.a.b. photo-pelting?

Unfortunately, I won't be able to deal here with certain items as you must realize that I have to have this news in Melbourne before the 8th, but if you hear of anyone in hospital or in ill health let one of the councillors know and we will pass the word around.

Also, country members, don't forget if you are in the area to stop and contact Bill, or someone here because we would like to hear from you, or meet you.

Finally, I've probably used up my news for the rest of the year, so what about sending some along and helping me make this column a success. My phone number 55-2888—4VY.

TOWNSVILLE

It is to be hoped that very soon 4WI's tx will have a new home, so that there will be no grumbling from the boys. The stations calling in will be able to net on the proper frequency, 14343. Because these are tx's are txal controlled and after warm up do not drift whereas the rx's do. This causes them to fit in the moments to switch on and therefore their v.o.t.'s have not settled down. Hence they hear one chap, whose v.lo. is thus slightly drifting and not him and soon all are spread around between 14338 and 14345 Mc. The call signs are not the same as they have to continually re-tune. Bad luck all during the Sunday 4WI net. Hard enough with present conditions without others using the frequency.

Can anyone inform me of propagation of the radio waves and how do they interfere before arriving at my antenna because on checking 15 mx I have noticed at times that WWVH is up to 20 seconds ahead of WWV with JJY in the middle. This has been noticed often around 55 Mc. E.A.R.T. Would like others to check this.

The boys in Townsville have a further breathing space as now the situation of the tx station will be Mount Stuart, about £2000 to build and will take about six months before it will make its appearance and naturally land at the feet of local Amateurs.

The local boys want it known that they are running a net on 14 Mc each night at 8 p.m. and ask for others to call in. With present conditions may make the others come on the air and not let the spiders build webs amongst the coils, etc.

Conditions are certainly bad for the Z boys as no break-throughs on 80 Mc for over six

weeks. Their rigs are lying dormant, may spur them on to get full tickets.

Last Sunday, after 16 Mc, had dropped out, it was impossible to hear the boys from further north, ragchewing on 7 Mc, but they soon found another at night this band was no good for southern VK4s need to skip them and veer away to ZL.

With the passing of 4CU a local a.w.l. was thrilled to hear the Request on the 7 a.m. net on 7 Mc. on Monday, 13th May Madie a special call upon me to give me the details, so I did. John Campbell of the University Physical Department and his subject was "Radio Astronomy". Mr. Campbell gave his talk with a rapid delivery and particularly clear diction, which meant that he covered a considerable amount of material. As far as the number and variety of questions from the members at the conclusion of the talk, it was evident that those present had absorbed the subject particularly well, and were anxious to learn more. Most lecturers I have seen strive to make themselves masters of their subject and naturally have tended to gloss over the imperfections in favour of the perfections. However, Mr. Campbell, certainly a master of his subject, did not attempt to sidestep any question and was the first to point out that the resolving power of aerials were vastly inferior to optical means as yet, but stressed the point that radio astronomy had justified itself if only from the point of being able to detect the radio sources in the heavens (important from our point of view), whereas this would not be possible from optical means.

For one awful moment I thought that he was going to leave me holding the bag and ignorant of blackboard writing, but he had with him alternative but than to write up the whole article in this magazine, but occasionally he wielded the chalk, and with Council still firm in its declaration to refuse to post the blackboard over to the magazine committee, he wrote on the blackboard and then just recovered from the fight, I usually grab the lecturers for the night and make an impassioned plea for a little work on the blackboard, but I missed out at this meeting. The vote of thanks was ably proposed by that genius of the spoken word, Keith 4WI to you! and was seconded by all present in an unctuous manner.

Practically no business F.E. or otherwise was transacted, although a few exchange letters from Peter 4V4 on fringe area t.v.i. came up, and it was officially stated that this matter was now to the F.E. level, and for the moment there it will rest. The meeting closed around about 11 p.m. with the members leaving with their couches of virtue well satisfied with the fare provided at the meeting.

Incidentally, talking about the fare provided at our meetings, there seems to be a growing interest in the middle of the year, a sort of a high watermark, when there will be no business, no lecture, no nothing, but just a good chance to meet the other chaps other than on the air and generally fraternise. Personally, I don't see how it would be a good idea, but it is worth trial, and submit it to these responsible for what it is worth. The reason that I submit it here is because if I were to submit it to Council personally, they would know it over at once, and only a dozen or so would know it. Only a dozen a bad name, well you know that rest anyway. As a matter of fact, without labouring the point too much, it might not be a bad way of getting to know all the new members that have bobbed up over the last few months. One of the big uses of badges is for the meeting as a means of achieving this, but for some reason or other this is now a thing of the past. Remind me to bring this up at some meeting, sometime.

Phil 4NN at the moment of writing, is over seas, on a trip to Germany, business-wise, and there is not much in the rumour that after one meeting night in the chair he decided to leave the country immediately.

Socialities were a goog this week in VK3 by the announcement on the back page of the local

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paper that none other than Joe SJO had been hit fair and square in what used to be a field fire drawn from that little band who trots around with no clothes on and a quiver full of such arrows. The lucky member of the fair sex is Nellie Harrison, and the happy pair seem to have settled at the end of the year. Good luck to you, Joe, and a fast

My tried and trusty friend's rounds of hollow laughter and gritting of teeth, Comps SEP, the sultans of a.s.b., grabbed with both hands the opportunity of boasting to the members of the Society of Victoria about his A.S.B. notes, and to such good effect that he left me without any actual grounds of complaint. However, having searchingly read the paragraph several hundred times in an endeavour to get the true objective of his boasting, I noticed with a feeling akin to horror that no mention was made of what could be called a veteran of a.s.b., none other than George SGD. If my memory serves me right, George SGD, who was a member of the Society nameless, were carrying out experiments in a solid way with this peculiar form of transmitting intelligence (that should increase my fan-mail from Interstate) back in 1957-58. George SGD, I am sure, was a man of great daring, something akin to a violet, who would never have drawn Comps' attention to his exclusion from the list of the "Toffy Woffies", but naturally I could not let the opportunity of doing some good for the Society go by. Joe SJO, aside, he is a little inclined to hide his light under the proverbial bushel, as witness of the fact, several VK5s have been receiving publicity in the local paper with respect to their experiments with Amateur Radio, while George SGD, was advancing in the same experiments almost ready for some closed circuit testing, but like Bre'r Rabbit, is saying nuffin.

Dad SMD, absent from the State without my permission, has been writing to me from time to time in VK4, and whilst this report is only rumour, knowing him as I do and his usual annual walkabouts, I quite believe it. Strangely enough, during his absence, a couple of his brothers missed him so much that they left their homes here without even giving notice, and tried to join him. It is his magnetic appeal I suppose.

Leith N.G. heard in QSO the other day describing his new invention for quick band changing. The band is marked in 16 different colour on all dials and at a snap of the fingers can jump from Indigo to chartreuse. I beg your pardon, from 9 to 14, whilst the average hams are still working on 9. All a little confused, I am sure, but the idea of such conditions being extra good on red or QRN being bad on blue, to say nothing of static being very annoying on heliotrope. I was a little perturbed to hear no reference as to how it worked on such bands, so asked "Why not 'Fancy Blue'" (VK5), because I always work on that band during the R.D. Contest. If he ever gets picked up for off-band working he can always play colour cards.

Things have been reasonably quiet up at Elizabeth this month, at least that's what my espionage agent reports, but as far as I am concerned if all sounds like feverish activity depends on one thing I expect or could be. And Domini on my life! For the benefit of those who may not be able to speak the Hindustani language as fluently as myself, that means that possibly I could be letting the secret of that place to the Scylla, which means my own mouth of course that I am perhaps getting a bit long in the tooth, which means no course—oh well, you get the point I think!

Don Vervel has obtained his limited ticket and grants the rejoicing thereof. His call sign is SKDV and he is not resting on his laurels but is keeping his c.w. practice going and hopes to get his full ticket this year. Nice work Bill, although Don STM may not second you Bill, you are certainly a soloist indeed at Don STM, with only 100 yards between them. Don STM is still active on 6 m but has been heard on the "squares" bands at times, mainly on 30 m.

Tubby SNO has been fairly quiet of late, due no doubt to the fact that Harmonie Jeff SNQ is on university holidays. The latest communiques from the Controller of STA Main North Road (the XTR might possibly dispense the STA) is that the present level of amateur activity will be at a minimum, what with SWG going to bed at 0200, SNO getting up at 0005, and the reverse an hour later. The Valve King resembles an airport cafeteria. Ian FOX has been keeping busy, and in view of the fact that this band is too active at the moment for him so he will give it a rest. Well I never did. He recently was the recipient of the E.R.E. Award, can't think of full title (possibly one of the wise men from the East might help out), but the main thing is that he has received it.

Harry SEU has been heard working on 28 m lately, with a signal that has to be heard to be believed, which all adds up to the fact that if he is being heard on 28, then 21 Mc. must be sick and ailing. Possibly Ian is getting a d.b. report above Harry? Keith SEJ has not been heard lately, and the expectations minder of the brevity of the Elizabeth area are waiting for "H" to happen. Just what is "it" I am not in a position to say, but as they somewhat correctly put it, "something is cooking".

Pete SEP was seen the other day with his ears just protruding from his automobile, and of course this means that his Amateur activities during the week-ends have been somewhat limited as a result. Ron SWY, who incidentally became Harry SEP's member of his lineage (get it?) has his mobile set-up functioning well on 80 m, much to Clive's SEP relief. Ron has also been heard on 14 and 7 Mc. Versatile, isn't he? Cyril EDY would be the first to admit that he is, although he has been fairly busy with the new garage and its associated fittings, and there is a strong rumour that he will tack a possible shack on the end. Well, we'll wait a few months to see if the rumour comes true, but the QSLs still continue to arrive from here, there, and everywhere, with monotonous regularity. Pete SEP has been conspicuous by his absence from the Conventions, and I am sure that his becoming lyrical again, it's the metwurst in me, but the fist on SWC at Woomera lately sounds mighty familiar. Can I read code? Can I read code, haw-haw-haw—Can it?

Joe SJO, that roaming Romeo from Brompton, was last visited at the last meeting of the Elizabeth Club and together with their present enjoyed the screening of the films projected by John SZJM. Ken SZCR has now left for Klinba, and it is possible that a 6 mx signal could go into orbit from that direction any day. Now, SEDA is busily building his rig at present and naturally is not very active. He hopes to take his c.w. exam shortly with a consequent increase of the local QRM. Best of luck OM.

Inky SWP is going to receive—how did he get in here again, sheer favouritism—anyway, he is going to receive the first "BV" award issued by the Taiwan gang. Some are great, some are born to greatness, and some have greatness thrust upon them. Invariably, individuals from the city and any other place are cordially invited to attend the monthly meeting of the Elizabeth boys. Further information available from Ron MY. Blime, he has got in again!

I managed to sneak one of my spies over to the VK5 South West Zone Convention at Warrnambool at considerable expense and inconvenience, to the spy that is, and he returned to VK5 full of the splendid time had by all, the good-fellowship between all, and the good job for Amateur Radio the Conventions do down all angles. Three VK5 visitors were among those present. Luke SLL, Dave SAW and Al SZCR, and Luke was presented with the award for the longest distance travelled to the Convention. My spy tells me that Tony SWP, who is the author of the book with his mobile set-up, so much so that Heath Robinson has decided to sue for breach of patent, and he was the first away, with a squeal of tyres and a cloud of dust, on anything that moved. "Well, I'm not a bad driver," said the last back, having spent most of his time in tracking down the local b.c. station in mistake for the fox. Nobody enjoyed themselves more than he did, and if he had his way the VK5 zone would be the best in the land end. Attaboy, Tony! Don JAKW lost his antenna loading coil on the road at one time and had everyone present hunting for it with feverish intensity, only to find that it was in the instrument panel. We have more information on that point but will have to stop because the VK5 zone correspondent will be stop after my blood for poaching on his preserves, and there are enough VK5 plus one on two VK5s per capita to keep the zone busy. The local espionage agent (I have to call him that now, as part of the Convention he was introduced to the Mayor of Warrnambool) was full of praise for the organisation behind it all and is eagerly looking forward to the next one. Fat hope he has, I will go myself!

Latest information as to the deeds or misdeeds (I will leave it to the umpire) of the unofficial Mayor of Lucindale, Arch SKK, tells of the fact that he is the possessor of a new cat, donated by Luke SLL, it is a wonderful a work of art, it is a beauty. Arch insisted that it must be a black and white cat as a sign of his allegiance to the Port Adelaide Adelaide team. Football they name it! Arch!

Over a spate of mobile stations on 7 Mc. over the past month in VK5, all from the East. Ian SAMI was over on holidays and when heard was stationary mobile, whatever that

is, from Gawler. Peter ZXK was on a round trip and whilst in VK5 had a little trouble with his gear, and was heard to say that it took him five hours to get it out for repairs and that it would probably take 10 hours to put it back. Local like he needs minor's leave, well, John SWW has heard him just returning from a trip around Victor Harbour, Goolwa, etc., and was discussing the availability or otherwise of the fish at those resorts. I thought I detected a trace of disappointment in his voice, but I could have been wrong. John's error I did not meet you boys, but I usually run like mad when I hear a VK3 or a VK5. I can never sort out who are friends or foes!

Eric SEN was heard in QSO with KLU and apparently was their first contact for six years. Quite a while but not in the race with the lapse of time between the contact between Arthur SHY and Charlie SON reported in these notes by my friend from Gawler. Eric was also heard during his absence recently, 47 years was it not? How did I miss that scoop.

Ralph STR heard for the first time for many moons and when heard was in contact with Al SEP on c.w. too. I have to give Al credit for being the first VK5 visitor to mobile places of entertainment, and as such could refuse to endorse my annual application for my professional licence. He once said that nobody approached my ability as a projectionist, but approached my ability as a projectionist, but approached my ability as a projectionist. I am not sure whether he meant up or down!

Pete SEP is the recipient this month of our sincere wishes and congratulations on his marriage, and if the news around the broadcast stations can be believed, he is leaving Crystal Brook and will be living in Bendigo. It is understood that he would be working at the ADSL tx. Ray SWF heard on mobile several times, in fact he was definitely mobile on one occasion 300 miles north of Port Augusta. Bill SWX was heard on 7 Mc. with the news that he had completed his mobile tx and was well satisfied.

Nicknames are funny things, quite often they bear no relation to their owners. Take Panay for instance, this one has been with me for years, and it is caused something like a surprise when I have been introduced. Take Doc MDM, take Inky SWP, take Pop SLD. Heard him confess over the air recently that the reason he used that nickname was because it was given to him by the son of a friend of his. Heard Rick SWP telling Wally SDF on 7 Mc. last Sunday that he was going to the zoo in the afternoon and was apprehensive as to whether he would be able to get out. Did Rick get out? Did Rick eat a fat sandwich? Read these interesting and entertaining Divisional notes next month and find out whether to take a bag of peanuts with you next time you visit him!

Had a short note from Alice Springs this week from another member of the SUX "Uncle Kroc" to whom he says that the bus has been broken again and that he is in the middle of a "Geloso" fit-out, and it was all set off because he gave Bill SEW a hand to operate his station at the second Alice Springs Show on Saturday. Peter MDR, it was a great production and was a huge success. He is sending a report on the show to "A.R." with all details. He also mentions that Graham 3QZ arrived at Alice Springs complete with an 80 m portable (7 Mc) and a wobbly XYL. The 3QZ's had a small celebration at the SUX QTH. Nice work. Les, good to hear from you again, and knew the bus would get you in the end. I never nominated you for the job, I never nominated you for the bus.

John ex-SQL will be arriving in VK5 from G land for permanent residence in our fair State, having left the R.A.F. and become a civilian. He will live at Elizabeth and will take up the old call signs again added to the QTH. There must be something about the air in VK5, once you breathe it you can't live without it!! Eastern States please copy. Oh, I say the cutest things.

Theay say in VK5 that they have to shoot me to stop me, so I will beat the gun and say TA SP5 (Panay to you).

WESTERN AUSTRALIA

The last monthly meeting attracted quite a good attendance, and after a lengthy discussion the members voted down to have an interesting lecture on "Mouth-to-Mouth Resuscitation," given by Mr. W. Williams, of the P.M.G. Technicians School. After a most interesting talk and a film showing the method, some members were noticed trying the procedure with the assistance of "Charlie" the mannequin.

With the lessening of activity on the higher bands, 30 m and 40 m have become quite

populated, many VK6s renewing QSOs with Eastern States and ZL. Conditions occasionally have been very peculiar, signals appearing and disappearing in very short time.

Some interesting contacts are made on 80 mx one way by a signal which had speakers jumping out of enclosures and Amateurs rubbing their ears. After sundry antennae were switched out, it was found to be SSB/ZQZ/M on the "air".

Ken TKA, Kew, Kew, Kew, Kew, Kew, Kew, Kew. He informed us he was using two J33s in the final modulated by a pair of 613s. Just as well there were no more of them about. Alan GAB has acquired a secret weapon which he will probably use in self defence.

IXO is regular, having 80 as usual with Almon's members of his "gang". It appears that Katanning is a windy place to live in; what say Herb? VK5 Amateurs are appearing in out-of-the-way places. Almost DX in fact. A new call sign is EDG in Port Hedland and of course we have SAW in Albany. Wally comes in morning from Wiluna, while Bill EDK in Kalgoorlie, ETK in Norseman and SKJ in Albany are quite often heard on the lower bands. In fact we even hear that Jack SWK is considering getting into the DX field. He has a lot of radiation. Better take that +watt job with you next time you go to the caves Jack.

Have not heard 4RX much on the lower bands lately, but you have no doubt been kept busy at night Bill.

The dozen of VK5 Amateurs, SAC included, are getting along in Napier. There is QSO with the man who is back home again organising his new shack and looking very fit. At present Wally comes on the air with his 12 set. Skipper AWS, the Q.O.M. of VK5, is back on the air after a long absence getting along well. Doug ETK. We do not hear ETK so often lately, but he puts in a good signal when he does appear, except when the power supply "bods" get mixed up with his serial. Take care of that "marching bug".

Since TVI has appeared in VK5 many of the fringe area chaps have had much trouble suppressing harmonics, perhaps ZEL could give them a few hints. 6WL has not been heard since often from Wally although he has done more than most to t.v.i. avoid interference. We hope he overcomes it soon as he is missed on the bands. S.A.B. is the present topic of QSOs and some very good signals have been heard. I hope S.A.B. does not disappear any too soon. The new shack is now fully built and away and open the window. Bob GRO has been on S.A.B. lately with his super set and Ian SCL is on his way with d.b.s. reduced carrier. Hope to hear you back soon Ian with your shack, etc., etc.

The slow DX transmissions are still carried on by a few stalwarts but more operators are needed to make it easier for all. 6PH is the organiser but unfortunately is away from home every second week. SGD does a stirring job with his news and manages to keep a very interesting transmission each Sunday morning. When this new shack (if proof) of Wally SAG is finished, we hope to also hear Wal having the news from his new QTH.

The Geraldton Amateurs have not been heard very often lately, but that may be due to conditions, local difficulties, or just not being around to the air. They are still heard to sometimes when VK5, 1, 5 and 7 are on the air. Which reminds me, Ron SHY has been concentrating on the Interstate mobile contacts; he regularly into VK3 cars at about 3.30 in the evening, even VK3 CARS come through the Mt. Lefty road in S.A.-now 4-watt s.a.b. mobile. Also SNT on a No. 19 set with a 8 ft. whip driving into a drive-in theatre at Victor Harbour. 577 and 2A8 are two other active mobiles.

At the time of writing, it is with regret that we note another silent key-EHT. 73 for this month, 6ZCK per G.L.S.

TASMANIA

At our May general meeting we were fortunate to have Paul TZAF address us on transistors circuits. He clearly demonstrated the transistor equivalent circuits for the better known valve circuits. Thank you, Paul, for such a down-to-earth lecture which could only be of help to us all. We will soon be welcoming Hugh TDS as a metropolitan member.

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Hugh has been appointed to the staff of a very well known Government department with which Len TLE has a working association. Merv TCA has made his presence known on several occasions just recently and it could be that more QRM will occur in the Hobart area as a result. It is good to hear you Merv. Ken TKA has been mobile marine again during the first week-end in June. Tom TAL has completed the erection of his antenna and hopes that conditions will improve enough soon to give it a thorough trial. Tom TAL has at last received permission from the Clarence Commission to erect a workshop, which will be done round about. Tom can knock on the air so we can only hope that construction is effected quickly. Charles TCH has had his annual holidays about the end of May.

Lamb conditions generally have been particularly poor during May and in fact the 80 mx band at night time has been the only band to provide contacts. Generally, 40 mx has been very good indeed, with plenty of DX to be had, including KWEDF and KWEDG, CXKRY, COITK, JA1YL, VE8EE and many more.

Our official Sunday morning broadcasts continue to be QRMed. We can only come to the conclusion that this interference is deliberate, because of the number of stations involved. If it is not deliberate then we seek the co-operation of Amateurs generally to keep 7146 kc. clear of interference from 1000 to 1030 hours, and 7116 kc. clear from 1030 hours until the end of the Intercom round trip.

Doug TDW tells me he is making slow but some progress on his six-band mobile rig which we hope will be in service next summer. While talking about mobile work, the Fullerton Radio Communication Association, you all be build up direction finding gear for either the 3.8 or 144 megacycle ratio or both in readiness for next and ensuing summer activity and while you are about it, why not build up a mobile rig as well. You will certainly have some operating trouble.

At the June meeting of the Division, we were treated to three films on radio astronomy, all of which proved most interesting. In one film, we were delighted that our member, Dr. Grose Rever, was given a very honourable mention as the first Australian leader in this field. We were all the more delighted as the Doctor was in the audience.

The VK7 Division is seeking an Assistant Secretary to under-study Ken TKA, who has definitely decided to relinquish the secretaryship at the end of this present financial year. Please volunteer. Ken TKA could not be happy to show you the ropes while still in office.

Merv TCA has been heard on the bands again, we hope this is the beginning of considerable activity from you Merv. The R.D. trophy was awarded to him on Friday, 10th June, by Jack TJB the Acting Chairman of the Federal Contest Committee. While on the subject, remember that the other Divisions are really making a determined effort this year to take the trophy away from us. It's up to you to ensure that we retain the trophy, set your gear ready for the Contest next month.

Jack TJB is presently engrossed in the construction of a two-channel stereo unit, with 10 watts per channel. 73, Ian TZE.

NORTH WESTERN ZONE

Time has slipped by, finding yours truly scratching to find something to write about once more. Firstly let me thank Max TMX for helping me out in so ably compiling notes for the zone. I am full of praise whilst I was attending to some local duties. You set me a hard task Max.

Our last meeting was held at the usual place and no less than 20 people put in an appearance. An excellent speaker was standing in the chair, Alan Elliott who has recently obtained his A.O.C.P. and also to Ted TEJ who was back on the coast on business and turned up at the meeting to get his "attendance" marks—keen what! A number of letters received from the Burnie Fire Brigades thanking the zone for their efforts put into their radio equipment.

It was announced that the meeting to be held on the 1st August would be the Annual Meeting and attendance of ALL members is requested. Put a circle round August 1 on your calendar.

The July meeting promises to be very interesting as Ken TAJ is going to lecture on the fundamentals of sideband reception and transmission. Don't forget the date, 4th July, you possible future sidebander. The July meeting has also been earmarked as a night for a massive auction so let's hope some sure-plus gear is forthcoming.

Ken TKA is a very regular inhabitant of 80 mx. I do believe he has access to a nice tape recorder of one at least of his emissions. Not often that you get back what you transmit! Ken Charlie TCF has been having troubles

with hot water circulation instead of r.f. for a change; I don't know whether link coupling would work there Charlie. S.W.L. Geoff Sharp has been having trouble with his 100 kc. receiver, one is listening shape if we are not all on the air very regularly. I understand there is some activity in the zone with gear that might radiate signals on 3 mx, perhaps we'll break the intercom barrier in that region of the spectrum before the year is out.

Did anyone come up with a satisfactory answer to Max's problem of the broken feeder? Perhaps link-coupling would work there Max.

Minimum 5/-, for thirty words.

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Advertisements in this section will only be accepted from Institute Members who desire to dispose of equipment which is their own personal property. Copy must be received at P.O. Box 26, Man. Melbourne, C.2, Vic., by 8th of the month, and remittance must accompany the advertisement. Call signs are now permitted in Hamfest Dealers' advertisements not accepted in this column.

APACHE, SB10, Mohawk configuration; includes SWR Meter, Matching Speaker, Co-ax Relay, Mike, Bug, and all necessary connectors. 300 watt p.e.p. linear if desired. Professionally wired and modified including Tone Oscillator, Band Width Filter, Verner Carrier Null Controls, and ALC Circuit. 9 month old, mint condition. Value £850. Will sell complete or separately. What offers? Finance available. VK4RQ, Brisbane 95-2191, 18 Wendell St., Norman Park.

BARGAINS: Name your price. A.A. Radar No. 4, op. freq. around 150 Mc., consisting of 3 rack and panel cabinets with slide out units; for xtr, rvcr, and control indicator; comprising high low volt, reg. p. supply, c.r.t. units large and small, high pwr. xtr, fans, blowers, etc., lge. qty. h.v. transformers, switch gear, etc. many meters, relays, starters, valves and spares, incl. rot. beam, reduction gear drive, fold. dipole ant., directional controls, etc. To sell complete or cannibalised. Inspect 57 Orchard Cres., Box Hill North. Tel. 837-7429. Bill Stevens, VK3ZZ.

BUY: Command Receiver, BC453. Must be absolutely as new. Russell, FJ 9258, Victoria.

MUST SELL: Woden UM2 Modulation Transformer; 200-230v. Auto Transformer 6 kva.; Wearite Tape Deck with Audio Output Transformer and Oscillator Coil. Best offers by July 20, collect. VK3AKZ, 24-6149.

SELL: Brand new American Astatic 10C ceramic microphone, 300 to 3,000 cycles, built especially for s.a.b. Cost £29 to land. Sell to best offer over £15. Literature on request. Ideal for DX communication. Also Vibroplex type bug key, £1/10/0, black crackle finish. Eccleston Electronics, 146a Cotham Road, Kew, Vic.

SELL: Two Command Tx 5.3-7 Mc., £2 each, one at 12/6. A "2 in line" Rx 24-13 Mc., with 100 kc. crystal and 560 kc. i.i. strip, 85/-, Lifeboat Tx with hand-power generator, 35/-, Generator 18v./450v. 0.05a. VK2ZAF, FU 1254, Watsons Bay.

WANTED TO BUY: Communications Receiver, Ham Bands only. No disposals sets. Must be good late model. BW 2765, or 200 Elgar Rd., Box Hill, Vic.

Pick the Person WHO HAS A *Super* RADIOTRON PICTURE TUBE



The occupant of Apartment 16 is like most other people when it comes to watching a march, and yet his window remains shuttered, even while the marchers pass directly below.

The answer is a simple one—his TV set is powered by a SUPER RADIOTRON picture tube and, like other fortunate owners, he prefers to watch his marches from the comfort of a favourite easy chair.

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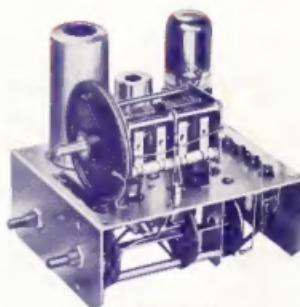


Thousands of the famous Geloso V.F.O. Units are in use in Australia and throughout the world—some even being used as complete portable transmitters.

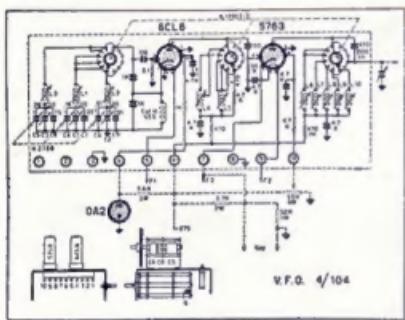
The basic circuitry of these V.F.O.'s. provide exciters of exceptional stability with ample R.F. output to drive most of the modern output tubes such as the 6146.

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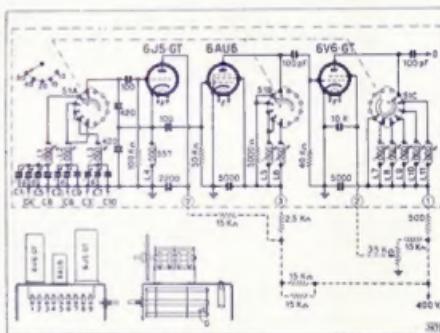
Our Communications Division is available to assist with any technical problems regarding Geloso V.F.O. transmitter design.



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Cat. No. N4/102/V. Five bands 80, 40, 20, 15 and 10 metres. R.F. power output ample for two 807s or 6146 (Class "C"). Amateur Nett Price: £9/12/0 plus 12½% Sales Tax.

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